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THE MYRIOPODA OF THE AUSTRALIAN REGION.

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No. 1.— *The Myriopoda of the Australian Region.*

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THE present more or less preliminary survey aims to cover the Australian Region in the broad sense, including thus New Guinea and the islands westward to Celebes, Australia, Tasmania, New Zealand, and the various Polynesian islands. It lists the known Chilopoda, Symphyla, Pauropoda, and Diplopoda and adds diagnoses of numerous new forms in the Museum of Comparative Zoölogy. By far the greater number of these occur in extensive and highly interesting collections made by Dr. W. M. Mann in the Solomons, Fijis, and in Australia (127 species) and by Prof. W. M. Wheeler in New Zealand, Australia, and in the Hervey and Society Islands (63 species). Among other collections may be mentioned those made by Dr. Thomas Barbour chiefly in New Guinea and the Moluccas (21 species), by Mr. G. H. Hardy in Tasmania (14 species), and by Dr. H. L. Clark in northern Queensland (9 species).

CHILOPODA.

SCOLOPENDROMORPHA.

CRYPTOPIDAE.

1. CRYPTOPS HAASEI Attems.

Zool. jahrb. Syst., 1903, 18, p. 105.

Cryptops australis Kohlrausch (*non* Newport), Archiv naturg., 1881, 47, p. 127.¹

Cryptops sulcatus Haase (*non* Meinert), Abhandl. Mus. Dresden, 1887, 5, p. 80.²

Cryptops haasei Attems, Fauna süd-w. Austr., 1908, 2, p. 106;³ Kraepelin, Arkiv zool., 1916, 10, no. 2, p. 2.⁴

LOCALITIES.— Queensland: Rockhampton.^{1, 2} New South Wales: Sydney.^{1, 2} W. Australia: York, Serpentine, Harvey, Donnybrook,³ Broome.⁴

2. CRYPTOPS SPINIPES Pocock.

Ann. mag. nat. hist., 1891, ser. 6, 8, p. 156.¹ Kraepelin, Arkiv zool., 1916,
10, no. 2, p. 2.³

Cryptops setosus Pocock, *Ibid.*, p. 157.²

LOCALITIES.—New South Wales: Sydney,¹ Blue Mts., Leura, Wentworth Falls (W. M. Wheeler); Queensland: Blackall Range, Herberton, Cedar Creek, Atherton.³ New Zealand.² Solomons: Ngi (W. M. Mann). Fijis: Lakeba Lau (W. M. Mann).

3. CRYPTOPS MEGALOPORUS Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 80.¹

LOCALITY.—New Zealand: Auckland Island.¹

4. CRYPTOPS LAMPRETHUS, sp. nov.

TYPE.—M. C. Z. 1,925. PARATYPE.—M. C. Z. 2,034. New Zealand: Plummerton, Taumarunni, August, 1914 (W. M. Wheeler). Color ferruginous.

Cephalic plate without sulci, overlapped by the first dorsal plate. First tergite without sulci. Paired sulci complete first on eighth dorsal plate. Prosternum presenting a straight chitinous anterior edge which is not at all or but vaguely and very slightly angulate at middle, without hairs. Sternites each with a cruciform impression of which the longitudinal furrow is wider and deeper and the transverse one curved with concavity cephalad; last three or four plates lacking this impression. Last ventral plate without sulci, narrowed caudad, caudal margin straight or slightly incurved. Spiracles large, longitudinally elliptic. Coxopleuræ short, caudally subtruncate, pores large and small, numerous, in numerous rows, not reaching caudal margin. Anal legs missing. Penult legs clothed ventrally with dense, very fine hairs in striking contrast with the much longer and coarser hairs and setae laterally and above.

Length, 28 mm.

The paratype does not show the peculiarity in hair of the penult legs. The anal legs have six teeth on the metatarsal and five on the first tarsal. Femur and tibia densely clothed beneath with spinescent setae.

5. *CRYPTOPS MIRUS* sp. nov.

TYPE.—M. C. Z. 1,931. Society Islands: Tahiti, Tipaeni Valley, 29 September, 1899. ALBATROSS.

Color ferruginous.

Cephalic plate overlapped caudally by the first dorsal plate, with a pair of short sulci in front of caudal margin. Antennae unusual because consisting of only seven articles which are unusually long. First tergite with two longitudinal sulci, at least excepting across the anterior border, other tergites bisulcate and mostly also with a deep median sulcus and an oblique curved sulcus on each side. Second tergite shorter than the first. Last tergite with caudal end triangular, the sides of the caudal margin straight and the angle not at all rounded, plate broadly and strongly depressed in front of the caudal angle. Anterior chitinous, edge of prosternum nearly straight, slightly indented at middle. Ventral plates coarsely though subsparingly punctate, without cornicles or other such elevations or roughening; each with a conspicuous cruciform impression, with the longitudinal furrow much the stronger. Coxopleurae caudally rounded, short; caudal margin with an uncertain number of spines, all but one having been rubbed off the type, pores numerous, not reaching caudal margin by a wide space. Last ventral plate narrowed caudad, caudal margin truncate, with corners rounded. Anal legs missing.

Length, 19 mm.

6. *CRYPTOPS NIUENSIS*, sp. nov.

TYPE.—M. C. Z. 1,942. Niue Island, 25 November, 1899 (Trop. Pacific Exped. ALBATROSS). PARATYPES.—M. C. Z. 1,946, 1,950, 1,954, 2,122-2,129, 2,169 — Fijis: Nadarivatu, Labasa, Turuca, Somo Somo, Vanua Ava (W. M. Mann). Solomons: Pamua, Wainoni Bay, Auki, Fulakora, "Atta trip" (W. M. Mann). Hervey Islands: Rarotonga (W. M. Wheeler).

Middle region brownish, head and first two plates and posterior plates light ferruginous; most plates blackish along lateral borders and the posterior ones in addition with a bigeminate median dorsal stripe; dark markings on pleural region as well.

Caudal edge of head overlapped by the first dorsal plate. Antennae composed of seventeen articles. First dorsal plate not sulcate. Tergites bisulcate from third caudad; in addition there is a median keel

set off by two longitudinal furrows, and on each side toward lateral border a deep, curving sulcus. Anterior margin of prosternum slightly convex on each side, with a distinct darker chitinous edge, bristles three or four on each side. Ventral plates with the usual cruciform impression of which the transverse sulcus is much the finer and curves forward on each side. Last ventral plate with caudal margin very slightly convex. Spiracles broadly elliptic. Coxopleurae but slightly extended caudad, subtruncate or very slightly convex caudally, pores thirty or a few less, failing by a wide space of reaching caudal margin. Penult legs with numerous long brown setae, no short fine whitish hairs. Anal legs not furrowed above and without teeth or process at distal end of any joints above, though the femur and tibia are obtusely notched at the distal end above, femur bearing numerous stout setae below and above, but no true spines, tibia with a single tooth or spine at distal end below; metatarsus ventrally with a single series of eight or nine teeth, the first joint of tarsus with three of four.

Length, 20 mm.

7. *CRYPTOPS SULCICEPS*, sp. nov.

TYPE.—M. C. Z. 1947. PARATYPES.—M. C. Z. 1,948, 1,986, 2,028. Fijis: Nadarivatu, Munia, Mbivatu (W. M. Mann.).

Color fulvous.

The head overlapping the first tergite or rarely slightly overlapped by the latter, with two fine sulci extending over its entire length, diverging forward, much as in *C. galathea*. First tergite with a curving, transverse sulcus; with no longitudinal sulci. Antennae composed of seventeen articles. Paired dorsal sulci present from third tergite caudad. Prosternal margin convex each side of middle; with a series of five setae on each side. A few anterior sternites with a cruciform impression, but beginning with the sixth the longitudinal sulcus is not evident caudad of the transverse one, and soon is evident only as a short mark in front of middle. Last ventral plate narrowed caudad, caudal corners widely rounded, caudal margin mesally slightly incurved. Anterior spiracles elliptic. Coxopleurae caudally truncate; pores small, numerous, above thirty, not reaching dorsal plate by a wide space; with spines caudally and some among pores. Femur and tibia of anal legs armed ventrally and on the sides with numerous stout spines (similar ones on immediately preceding legs soon passing into ordinary setae in going forward), dorsally with ordinary setae,

the tibia also with a single stout tooth near distal end; metatarsus with a series of about eight to eleven teeth below; the first tarsal joint with two stout teeth below.

Length, 18 mm.

8. *CRYPTOPS ETHOPHOR*, sp. nov.

TYPE.—M. C. Z. 2,013. PARATYPES.—M. C. Z. 2,014. Fijis: Lasema (W. M. Mann).

Color fulvous or in part light ferruginous.

Cephalic plate with two short sulci behind. Antennae short; composed of seventeen articles, all of which are very short. First dorsal plate with a sharply impressed cervical sulcus which is angled at the middle; paired longitudinal sulci present, rather light, converging cephalad but not meeting. Second tergite only half or less the length of the first. Prosternum with anterior margin chitinous, weakly convex on each side, shallowly emarginate at middle, the margin wholly smooth or with but one or two much reduced hairs on each side. Ventral plates not roughened. Last ventral plate narrowed caudad, caudal corners rounded, caudal margin between them straight. Spiracles nearly circular. All tarsi excepting those of last two pairs of legs uniarticulate. Setae of legs excepting the twenty first of ordinary form. Femur and tibia of anal legs armed beneath with numerous long spiniform setae, a narrow longitudinal naked area on each; the spinules on ectal side and those on mesal side above much shorter. Metatarsus of anal legs with three teeth beneath, the first tarsal joint with two.

Length, 8-9 mm.

9. *CRYPTOPS RELICTUS*, sp. nov.

TYPE.—M. C. Z. 2,118. PARATYPES.—M. C. Z. 2,119. Fijis: Nagasu (W. M. Mann).

Color orange to ferruginous.

Caudal margin of head free, only slightly overlapping the first plate. Antennae composed of seventeen articles. First dorsal plate with transverse sulcus angularly bent back at middle; two longitudinal sulci which bifurcate anteriorly, the inner branches meeting at the angle of the transverse sulcus. Anterior margin of prosternum a little indented at middle, each side only slightly convex, marginal setae 4 + 4. Sternites with the usual cruciform impression of which both

arms are distinctly impressed. Last ventral plate with caudal margin convex and bending evenly about corners to sides which diverge cephalad. Coxopleurae caudally truncate; bearing spinescent setae along caudal and lateral margins; pores exceedingly fine, almost obliterated, not numerous. Penult legs chiefly with ordinary setae, but with fewer somewhat stouter ones on caudal (mesal) surface. Femur and tibia of anal legs furrowed at distal end above; no teeth or spines at distal end above on any of the joints; femur densely armed below and mesally with stout, spinescent setae, with no naked ventral area; femur similarly armed but in addition with a single stout tooth; metatarsus with a few stout, spinescent setae on mesal side and with a series of four or five stout teeth beneath; first tarsal joint with two stout teeth beneath.

Length, 21 mm.

10. *CRYPTOPS POLYODONTUS* Attems.

Zool. jahrb. Syst., 1903, **18**, p. 106.¹

LOCALITIES.—Chatham Island. Stephens Island.¹

11. *CRYPTOPS LORIAE* Silvestri.

Ann. Mus. civ. Genova, 1894, **34**, p. 628.¹

LOCALITY.—New Guinea.¹

12. *CRYPTOPS AUSTRALIS* Newport.

Trans. Linn. soc. London, 1845, **19**, p. 408.¹ Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 129.² Kraepelin, Fauna süd-w. Austr., 1908, **2**, p. 106;³ Arkiv zool., 1916, **10**, no. 2, p. 2.⁴

LOCALITIES.—New Zealand:¹ Wellington.² W. Australia: Lion Mill, Mundaring Weir, Guildford, Cannington and Pickering Brook in the Swan River District, Jarrahdale, Harvey, Bunbury, Boyanup, Donnybrook, Bridgetown, Perth, Albany.³ Queensland: Cedar Creek.⁴

13. *CRYPTOPS TAHITIANUS*, sp. nov.

TYPE.—M. C. Z. 2,075. Society Islands: Tahiti (W. M. Wheeler).

Allied to *C. australis* Newport and *doriae* Pocock. First dorsal

plate overlapping the cephalic plate; without curved transverse sulcus. Antennae composed of fifteen articles. Anterior margin of prosternum very slightly convex on each side; setae 4 + 4. Cruciform impression on sternites distinct back to the nineteenth plate, the longitudinal branch about as well developed as the transverse; on the twentieth and twenty first plates a weak longitudinal sulcus also evident but a transverse impression indicated obscurely only on the first of these. Paired dorsal sulci present from the third segment caudad. Last ventral plate with sides a little convex, a little converging caudad; caudal margin nearly straight, vaguely convex. Coxopleurae caudally slightly rounded, subtruncate; the caudal margin bearing a number of spiniform setae; caudal third free of pores. Femur and tibia of anal legs bearing numerous slender spines ventrally and on the sides but without teeth; metatarsus with a series of nine or ten teeth, the first tarsal article with four. Penult legs beneath with numerous fine hairs and scattered longer and stouter setae; no spines or teeth. Spiracles large, longitudinally subelliptic.

Length, about 15 mm.

14. *CRYPTOPS ZELANDICUS*, sp. nov.

TYPE.—M. C. Z. 1,922. New Zealand: Wellington, 18 August 1914 (W. M. Wheeler).

Color fulvous.

Cephalic plate with caudal margin free, overlapping the first dorsal plate, a short median sulcus in frontal region and a pair of short submedian sulci in front of caudal margin. First dorsal plate without either transverse or longitudinal sulci. Second tergite with paired longitudinal sulci; much shorter than the first one. Last dorsal plate with caudal portion triangular, the median angle narrowly rounded. Prosternum with anterior margin convex on each side, edge chitinous, bearing on each side three or four setae. Ventral plates not roughened; last one caudally truncate. Coxopleurae short, caudally rounded; caudal margin bearing several spinescent setae; pores few (near twenty), partly covered, not reaching caudal margin. Penult legs with third and fourth joints beneath with numerous spines, corresponding ones on other legs becoming fewer and more slender in going cephalad. Anal legs with similar spinescent setae; metatarsus armed beneath with six teeth, first tarsal with two.

Length, 13 mm.

15. PARACRYPTOPS WEBERI Pocock.

Ann. mag. nat. hist., 1891, ser. 6, 7, p. 227.¹LOCALITY.—Flores: Maumerie.¹

16. PARACRYPTOPS BREVIUNGUIS Silvestri.

Ann. Mus. civ. Genova, 1894, 34, p. 629.¹LOCALITY.—New Guinea.¹

17. THEATOPS SPINICAUDUS (Wood).

Opisthemea spinicauda Wood, Journ. Acad. nat. sci. Phil., 1863, ser. 2, 5, p. 36.*Opisthemea insulare* Meinert, Proc. Amer. philos. soc., 1886, 23, p. 209.¹LOCALITY.—Hawaiian Islands.¹

This species is common in the southeastern United States.

18. OTOCRYPTOPS MELANOSTOMUS (Newport).

Scolopocryptops melanostoma Newport, Trans. Linn. soc. London, 1845, 19, p. 406.*Otocryptops luzonicus* var. *australis* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 98.¹*Otocryptops luzonicus* Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 633.²
Pocock, Weber's Reise, 1894, 3, p. 315.³*Otocryptops aculeatus* Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 478.⁴*Otocryptops luzonica* Attems, *Ibid.*, p. 479.⁵*Otocryptops melanostomus* Kraepelin, Revis. Scolop., 1903, p. 74.⁶ Attems, Zool. jahrb. Syst., 1914, 37, p. 380⁷; Bijdr. dierk., 1915, 20, p. 4.⁸LOCALITIES.—New Guinea:^{1, 6} Moroka,² Zoutbron. Celebes.^{3, 6} Gilolo.⁷ Halmaheira: Soah Konorah.⁴ Ceram: Honitetu.⁸

19. OTOCRYPTOPS VERDESCENS, sp. nov.

TYPE.—M. C. Z. 1,943. PARATYPES.—M. C. Z. 1,944. Fijis: Nasoqo (W. M. Mann).

Color dilute brown of a greenish tinge; head and caudal end of body orange or light ferruginous.

Head not margined. From *aberrans* it is at once distinguishable in wholly lacking prosternal teeth, the anterior margin of prosternum

being wholly smooth, presenting merely a long, nearly straight chitinous edge which is slightly emarginate at the middle. Coxopleural processes long and acute; coxopleural pores extending dorsad to the tergite. Last ventral plate caudally incurved or somewhat angularly excavated. Anal legs very long and slender as in the preceding species; spines of prefemur both well developed, the ventral one about equalling the diameter of the joint at the level of its base.

Length, 10 mm.; anal legs, near 6 mm.

This species stands apart with the following one from all others in having tergites margined much farther forward, the margination being distinctly present from the seventh plate caudad.

20. OTOCRYPTOPS ABERRANS, sp. nov.

TYPE.—M. C. Z. 1,941. Fijis: Nansori, Vesari (W. M. Mann).
Color ferruginous.

Head not margined, smooth. Antennae with first three articles nearly glabrous. Anal tergite with caudal margin mesally strongly bulging beyond lateral angles; the latter above with an acute spine. Ventral plates smooth, unfurrowed. Prosternum with anterior margin lightly convex, bearing two distinct black teeth on each side, of which the mesal is larger. Coxopleural process long and acute, much exceeding the ventral plate, pores reaching to the dorsal plate above. Anal legs very long and slender; femur with both spines well developed; the ventral larger, length less than diameter of joint.

Length, near 18 mm. Length of anal legs, near 8 mm.

This species is readily distinguished from the others in having the tergites clearly margined from the seventh to ninth caudad.

20a. SCOLOPOCRYPTOPS MIERSI FIJIENSIS, subsp. nov.

TYPE.—M. C. Z. 1,945. PARATYPES.—M. C. Z. 2,023. Fijis: Nasoqo, Nadarivatu (W. M. Mann).

Scolopocryptops miersi has heretofore been recorded only from the Western Hemisphere. The present form agrees very closely with West Indian specimens in most details; but in the anal legs the ventral spine is much larger as is also the dorsal spine which is of about the same size as the ventral spine in *miersi* proper; furthermore, the ventral spine is farther distad than the dorsal one, the reverse being true in *miersi*, and it is nearer the middle of the length of joint (dis-

tance of distal edge of base of spine from proximal end of article to total length of article as 11:25 whereas in *miersi* it is as 11:31). Anal legs shorter. The strongly chitinous anterior edge of prosternum convex on each side, slanting a little caudad of ectad away from middle, its outer end elevated, dentiform, or not.

Length, 42 mm., being thus considerably smaller than the average adult *miersi*.

OTOSTIGMIDAE.

21. OTOSTIGMUS GLABER, sp. nov.

TYPE.—M. C. Z. 1,933. PARATYPES.—M. C. Z. 1,934, 1,938, 1,949, 1,990, 2,019. Fijis: Lakeba Lau, Nansori, Nadarivatu, Lomati, Vanua Ava (W. M. Mann).

Color above, green, nearly uniform; antennae often distally fulvous.

Dorsal plate very finely and densely punctate. Antennae consisting of eighteen articles of which the first two and a half are glabrous. Dorsal plates from the fifth inclusive on with complete paired sulci. Eleventh dorsal plate margined, twelfth less completely so, others margined more or less completely, the twenty first most sharply so. All dorsal plates wholly smooth and shining, without trace of keels or tuberculation. Last tergite with a median longitudinal depression in front of the caudal angle. Prosternal dental plates each with four primary teeth of which the three innermost of each are fused excepting distally, the ectal one free and notched distally; sometimes only three teeth, with two innermost fused. Anterior ventral plates with sulci only across anterior border; but in the middle and posterior regions the sulci extend caudad to or beyond the middle of plate. Last ventral plate narrowed caudad, sides nearly straight, caudal margin weakly incurved, caudal corners rounded. Coxopleurae with long processes which exceed the last ventral plate by much more than their length; distally with two spinous points, laterally with two or three and dorsally with two (one on ectal and one on mesal edge), or often with but one. From first eight to first eleven legs with two tarsal spines, or some intermediate ones beyond the fourth with but one, the others to the twentieth inclusive with but one spine. Femur of the anal legs ventrally on ectal side with five to eight spines, ventrally toward mesal side with three to six, on mesal surface with a series of two to four stouter spines, and on mesodorsal edge with two (or three) spines in addition to the one at the distal angle.

Length, 35 mm.

22. OTOSTIGMUS TUBERCULATUS (Kohlrausch).

Branchiotrema tuberculatum Kohlrausch, Arch. naturg., 1881, **47**, p. 74.¹

Otostigmus tuberculatus Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 4.²

LOCALITIES.— Queensland: Rockhampton,¹ Atherton.²

22a. OTOSTIGMUS TUBERCULATUS PAUPERATUS Attems.

Bijdr. dierk., 1915, **20**, p. 4.¹

LOCALITIES.— W. Ceram: Waigeu, Beo.¹

23. OTOSTIGMUS ASTENUS (Kohlrausch).

Branchiotrema astenon Kohlrausch, Arch. naturg., 1881, **47**, p. 72.¹

Branchiotrema calcitrans Kohlrausch, *Ibid.*, p. 73.²

?*Branchiotrema luzonicum* Kohlrausch, *Ibid.*, p. 73.

Otostigma orientale Haase (non Porath in part), Abhandl. Mus. Dresden, 1887, **5**, p. 73.

Otostigma orientale var. *acutidens* Haase, *Ibid.*, p. 74.³

Otostigma discretum Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 528.⁴

Otostigma orientalis Brölemann, Mem. Soc. zool. France, 1895, **8**, p. 527.

Otostigmus astenon Pocock, Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 325, 327; ⁵
Kraepelin, Revis. Scolop., 1903, p. 114 ⁶; Arkiv zool., 1916, **10**, no. 2, p. 4.⁷

LOCALITIES.— Queensland: Rockhampton,² Cedar Creek.⁷ New Guinea: Moroka.⁴ Hermit Island.³ Solomons.⁶ Fulaga (W. M. Mann). Samoa.⁶ Tongan Islands: Eua.¹ Carolines.⁶ Ellice Islands: Funafuti, Rotuma.⁵ Mariana Island.⁶

24. OTOSTIGMUS LORIAE Silvestri.

Otostigma loriae Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 627.¹

LOCALITY.— New Guinea.¹

25. OTOSTIGMUS POLITUS Karsch.

Otostigma politum Karsch, Berlin. ent. zeitsch., 1881, **25**, p. 219.

Otostigmus politus Kraepelin, Revis. Scolop., 1903, p. 109 ¹; Arkiv zool., 1916, **10**, no. 2, p. 5.²

Otostigma polita Attems, Semon's Forschungsreise, 1898, **5**, p. 508.³

LOCALITIES.— Queensland: Burnett District,³ Herberton, Malanda, Belenden Ker.² New Guinea.¹

26. OTOSTIGMUS ATELES, sp. nov.

Otostigmus sp. Kraepelin, Arkiv zool., 1916, 10, no. 2, p. 6, fig. 2.¹

LOCALITY.— Queensland: Malanda.¹

27a. OTOSTIGMUS RUGULOSUS var. MERTONI Ribaut.

Abhandl. Senckenb. gesellsch., 1912, 34, p. 283.¹

LOCALITY.— Aru Islands: Wammer Island, near Dabo.¹

28. OTOSTIGMUS BARBOURI Chamberlin.

Ent. news, 1914, 25, p. 386, pl. 17, fig. 1-3.¹

LOCALITY.— Dutch New Guinea: Sorong.¹

29. OTOSTIGMUS ORIENTALIS Porat.

Bih. Svensk akad. Handl., 1876, 4, no. 7, p. 19. Pocock, Weber's Reise, 1894, 3, p. 312.¹ Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 478.²

LOCALITY.— Flores: Maumerie.¹ Halmaheira.²

Also known from Bombay and the Seychelles.

30. OTOSTIGMUS MOLUCCANUS Chamberlin.

Ent. news, 1914, 25, p. 388, pl. 17, fig. 6, 7.¹

LOCALITY.— Ternate.¹

31. OTOSTIGMUS PUNCTIVENTER (Tömösvary).

Branchiotrema punctiventer Tömösvary, Term. füz., 1885, 9, p. 66.

Otostigmus punctiventer Pocock, Willey's Zool. results, 1898, pt. 1, p. 61.¹

Attems, Bijdr. dierk., 1915, 20, p. 4.²

LOCALITIES.— New Britain.¹ Ceram: Waigeu, Beo.² Dutch New Guinea: Sorong (Thomas Barbour).

32. *OTOSTIGMUS ANGUSTICEPS* Pocock.

Wiley's Zool. results, 1898, pt. 1, p. 62.¹

LOCALITY.—New Britain.¹

33. *OTOSTIGMUS PROPONENS*, sp. nov.

TYPE.—M. C. Z. 2,166. PARATYPE.—M. C. Z. 2,167. Solomons: Fulakora, Wainoni Bay (W. M. Mann).

Color of type above dark olive, the first one and several of the last plates of reddish cast as some of the others may be laterally. First two joints of legs brownish, the other joints a lighter olive. In a paratype the legs are a lighter green.

Dorsal plates bearing numerous minute points especially in the posterior region, the points finely tipped, the surface under the microscope appearing minutely scabrous. Antennae long, composed of twenty-two articles of which only the first two are glabrous. Dorsal plates from the sixth inclusive on with complete paired sulci, those from the eleventh caudad margined. Posterior plates in front of the nineteenth with one or two very low, broad keels on each side just mesad of the margining sulcus. Last tergite with a median longitudinal depression in front of the posterior angle, this becoming shallower on anterior part of plate. Prosternal plates each with three large teeth of which the two most mesal are partially fused and the innermost bears on its mesal edge a minute fourth tooth. Paired longitudinal sulci of sternites absent or evident only across anterior border in type; in a paratype on some plates of the posterior region the sulci extend well toward the middle. Sternites under the lens showing a moderate number of laterally compressed elevations or tubercles. Last ventral plate narrowed caudad; caudal margin incurved. Coxopleural process ending in two points, with one dorsal spine and two lateral ones on caudal margin of coxopleurae. Tarsi of legs to seventh pair inclusive with two tarsal spines, others to twentieth inclusive with one spine. Femur of anal legs ventrally toward ectal side with four spines, toward inner edge with three and on mesal surface with about seven or eight, a small one at mesodistal angle above.

Length, 65 mm.

34. *OTOSTIGMUS COMPLETUS*, sp. nov.

TYPE.—M. C. Z. 2,109. Solomons: Auki (W. M. Mann).

General color olive, with head somewhat more brownish and legs more greenish.

Dorsal plates without trace of keels or roughening; densely marked with exceedingly fine puncta. Antennae long, composed of twenty articles of which the first two are glabrous and the third glabrous at proximal end ventrally. Dorsal plates from fifth on with complete paired sulci, those of the fourth complete excepting at middle. Tergites from eighth caudad margined. Last tergite depressed just in front of angle, the furrow not evident on anterior part of plate. Ventral plates with paired sulci deep and complete. Last ventral plate only slightly narrowed caudad, the sides being nearly parallel; caudal margin widely incurved. Coxopleural processes each with two spinous points at tip; just cephalad of these on ectal side a spinule and one farther removed at base of process, and a single dorsal spine. Femur of anal legs toward ectal side beneath with a series of four spines; toward mesal edge beneath two spines; mesal surface with five teeth, three in a more ventral series and two in the dorsal; one spine at distomesal corner above.

Length, 50 mm.

35. OTOSTIGMUS PAMUANUS, sp. nov.

TYPE.—M. C. Z. 2,112. Solomons: Pamua (W. M. Mann).

Color deep olive, the legs more greenish.

Antennae composed of twenty-four articles of which two and a third are glabrous. Dorsal plates with complete paired sulci beginning with the fifth. Tergites margined beginning with the ninth. Tergites with a rather narrow, low and flat median keel and some with one or two lateral ones on each side more or less obscurely indicated, the surface in part sparsely scabrous. Each prosternal dental plate with three large teeth of which the median and outer one are weakly incised or subdivided, the outer one in consequence showing a much smaller denticle at base on ectal side. Most ventral plates without paired sulci or these evident only at anterior border; however, a few in anterior part of posterior region have the sulci extending to middle or entirely across plate. Last ventral plate scarcely narrowed caudad, subquadrate, lateral margins weakly incurved as is also caudal margin, the corners rounded. First three pairs of legs with two tarsal spines, the others to the twentieth with one. Coxopleural processes short; with two spinous points at apex; two lateral spines, one close to apical ones, the other near middle; one dorsal spine. Femur of anal legs with numerous spines; ventrally an outer row of seven spines with several adjacent smaller spines or points; toward mesal edge on

ventral surface about twelve spinules in two irregular series; mesal surface with five or six spines; one spine at distomesal angle above.

Length, 39 mm.

36. RHYSIDA KURANDANA, sp. nov.

TYPE.—M. C. Z. 2,151 Queensland: Kuranda, 2,000 ft., September, 1914 (H. L. Clark).

Head sparsely punctate. Antennae composed of eighteen articles, short, reaching only to, or but slightly beyond, the end of the fourth tergite. Dorsal plates from third segment on sulcate, those from sixth on margined. All tergites smooth, without trace of carinae or tubercles. Prosternal teeth 5 + 6, the two innermost on each side almost completely fused; the caudal limiting furrows of the dental plate forming an obtuse angle at the middle; dental plates broader than long. Ventral plates without sulci excepting for the usual short traces on anterior border. Last ventral plate obviously narrowed caudad, sides convex, the caudal margin weakly concave. Pseudopleural process short, triangular, with tip bispinous, two ventral marginal spines of which one is well towards apex. Legs from first to seventeenth with two tarsal spines, twentieth with a tarsal spine. Femur of anal legs ventrally with four denticles or spines of which three are in an oblique proximal row and one alone toward middle; in addition there are along the mesoventral side seven teeth, three pairs and a single one at end of the joint.

Length, 48 mm.

Apparently nearest to *R. subinermis* (Meinert).

37. RHYSIDA DEFECTA, sp. nov.

TYPE.—M. C. Z. 1,928. New South Wales: Southerland (W. M. Wheeler).

Color brown, with the head and two first tergites greenish; posterior legs also greenish.

Head nearly wholly smooth, the puncta being vague and scattered. Antennae consisting of twenty-one articles, the three proximal of which are naked; reaching to the seventh tergite. Dorsal plates bisulcate from the third one on, margination beginning with the seventh. Tergites all smooth, without trace of keels or tubercles. Prosternal teeth in type 4 + 5 (or 6), the two outermost on the left

side being much smaller and the third tooth being also partly divided; the caudal limiting sulcus of the dental plates forming an obtuse angle at the middle, sending off a small branch on each side in a caudoectal direction; dental plate broader than long. Ventral plates without sulci excepting the short traces across anterior border. Last ventral plate with sides convex, narrowing strongly caudad from near the anterior third, caudal margin incurved. Pseudopleural process exceeding ventral plate by more than its length, distally somewhat bluntly rounded; with three apical spines, and one on lateral and one on dorsal margin; pores small and very numerous, the porigerous area much broader than the non-porigerous. Legs from the first to the sixteenth inclusive with two tarsal spines; twentieth legs each with a tarsal spine. Anal legs missing.

Length, 45 mm.

Very similar to *R. longicornis* Pocock; but distinguished from that form in having the sulci and margination of tergites begin farther forward.

38. RHYSIDA SUVANA, sp. nov.

TYPE.—M. C. Z. 2,026. PARATYPES.—M. C. Z. 2,027. Fijis: Suva (W. M. Mann).

Head sparsely punctate, the puncta nearly absent from the most anterior region. Antennae composed of twenty articles, reaching to segment five. Tergites bisulcate from the fifth caudad; margined from the eighth caudad. Prosternal teeth 3 + 3 but the two innermost on each side almost completely fused, being separated only by a slight distal notch, rounded; caudal limiting sulcus bent forward at middle into an acute angle, the principal part of sulcus forming a very slightly obtuse angle when projected; dental plates broader than long. Anterior ventral plates with the usual sulci only across anterior border; but others with the sulci extending back to or nearly to the middle of the plate. Last ventral plate narrowed caudad, the caudal margin widely incurved. Pseudopleural processes of moderate length; each bearing three spines at tip, two lateral marginal ones well removed from apex, and one on dorsal edge. Femur of anal legs armed ventrally with an ectal longitudinal row of three spines and a single spine toward the mesal edge; mesally bearing a lower longitudinal row of three spines and an upper one of two; a single spine at the dorso-caudal angle.

Length, near 40 mm.

39. RHYSIDA SUBINERMIS (Meinert).

Branchiostoma nudum Kohlrausch (non Newport), Archiv naturg., 1881, **47**, p. 64.¹ Haase (non Newport), Abhandl. Mus. Dresden, 1887, **5**, p. 84.²
Branchiostoma subinermis Meinert, Vid. medd. Kjoben., 1886, 1884-1887, p. 11.
Rhysida subinermis Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 7.³

LOCALITIES.—Australia.¹ Queensland: Port Mackay, Bowen, Brisbane, Elpinton, Herberton, Malanda, Atherton, Cedar Creek, Belenden Ker, Mt. Tambourine, Glen Lamington, Colosseum,³ Enoggera near Brisbane (W. M. Wheeler). New South Wales.² W. Australia: Kimberley District.³

40. RHYSIDA NUDA (Newport).

Branchiostoma nudum Newport, Trans. Linn. soc. London, 1845, **19**, p. 412.¹
Branchiostoma gymnopus Kohlrausch, Archiv naturg., 1881, **47**, p. 67.²
Branchiostoma gymnopus var. *ceylonicum* Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 412.
Branchiostoma nuda Daday, Term. füz., 1891, **14**, p. 183.³
Rhysida nuda Attems, Semon's Forschungsreise, 1898, **5**, p. 508.⁴ Pocock, Ann. mag. nat. hist., 1901, ser. 7, **8**, p. 459.⁵

LOCALITIES.—Queensland:³ Port Mackay, Bowen, Brisbane,⁵ Burnett District.⁴ New South Wales: Paramatta.^{1, 5} Victoria: Elphinstone.⁵ Banda Island.²

41. RHYSIDA CARINULATA (Haase).

Branchiostoma carinulatum Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 82.¹
Branchiostoma carinulatum var. *australicum* Haase, *Ibid.*, p. 83.²
Branchiostoma carinulatum var. *efflatum* Haase, *Ibid.*, p. 83.³
Rhysida rugulosa Pocock, Weber's Reise, 1894, **3**, p. 314.⁴
Rhysida carinulata Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 629.⁵ Kraepelin, Revis. Scolop., 1903, p. 145.⁶

LOCALITIES.—Queensland: Cape York,² Kuranda (H. L. Clark), Thursday Island.³ New Guinea.^{1, 5} Celebes.^{4, 5, 6}

42. RHYSIDA LONGIPES (Newport).

Branchiostoma longipes Newport, Trans. Linn. soc. London, 1845, **19**, p. 411,
Branchiostoma gracile Kohlrausch, Archiv. nat., 1881, **47**, p. 66.¹
Branchiostoma affine Kohlrausch, *Ibid.*, p. 68.

Branchiostoma longipes = var. *rotundatum* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 84.²

Rhysida longipes Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 630.³ Attems, Abhandl. Senchenb. gesellsch., 1897, 23, p. 478.⁴ Brölemann, Records Austr. mus., 1912, 9, p. 44.⁵ Attems, Bijdr. dierk., 1915, 20, p. 4.⁶

LOCALITIES.—Queensland: Condamine River.⁵ Victoria: Melbourne.² Banda Island.¹ New Guinea.³ Ternate. Halmaheira.⁴ Ceram: Waigeu.⁶

43. RHYSIDA IMMARGINATA (Porat).

Branchiostoma immarginatum Porat, Bih. Svensk. akad. Handl., 1876, 4, no. 7, p. 24.

Branchiostoma immarginatum var. *celebense* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 86.¹

LOCALITIES.—Celebes.¹ Fijis: Nansori, Labasa (W. M. Mann).

44. ETHMOSTIGMUS AUSTRALIANUS, sp. nov.

TYPE.—M. C. Z. 1,927. New South Wales: Southerland, September, 1914 (W. M. Wheeler).

Cephalic plate only obscurely finely punctate. Antennae composed of twenty articles of which, unlike other species of the genus, only the three first articles are wholly smooth and shining, though the fourth is hairy only distally and on the one side. Dorsal plates completely bisulcate from the sixth caudad, margined beginning with the seventh or sixth. Each prosternal plate with four teeth of which the end ones are reduced. Ventral plates bisulcate, the sulci deep over middle and fading out at ends. Last ventral plate narrowed caudad from a little behind the anterior end, the caudal margin obtusely angularly excised. Coxopleural processes exceeding the last ventral plate by more than their length, with two spines at tip, moderately close to each other, three spines laterally and four to six dorsally. Femur of anal legs ventrally with three spines in ectal row, three toward mesoventral edge, and on mesal surface with 2 + 2 spines in addition to the one at the distal angle. Twentieth legs each with a tarsal spine.

Length, 33 mm.

45. ETHMOSTIGMUS WALAINUS, sp. nov.

TYPE.—M. C. Z. 1,968. PARATYPES.—M. C. Z. 108, 2,113. Solomons: Wai-ai, Auki, Fulakora (W. M. Mann).

Color dark brownish green; head and first plate abruptly darker

than contiguous region. Anterior and median legs fulvous, posterior ones somewhat darker; first four articles of antennae green, the others fulvous.

Nearest *E. platycephalus* (Newport) and *E. spinosus* (Newport). Antennae consisting of twenty articles; articles longer than wide. Differing from the two species mentioned in having the sulci of the sternites sharply impressed from the second segment to the twentieth. Last ventral plate with but weak traces of a median sulcus; caudal margin deeply excavated. Coxosternal plate with 3 + 3 teeth or with a stunted fourth tooth on mesal side of each series, teeth bluntly rounded, not subdivided, presenting a characteristically different appearance from the species mentioned. Paired dorsal sulci beginning on third tergite but faint on this and the fourth plate. Coxopleural processes exceeding the last ventral plate by about the length of the latter or somewhat more; two apical points and one lateral and one dorsal spine. None of legs with two tarsal spines in type; nineteenth and twentieth with none. Femur of anal legs below with two spines in outer row, two in inner, two on mesal surface and two on dorsomesal edge, the distal dorsal process with a single point.

Length, 125 mm.

46. ETHMOSTIGMUS PLATYCEPHALUS (Newport).

Heterostoma platycephala Newport, Trans. Linn. soc. London, 1845, 19, p. 415.

Heterostoma platycephala + var. *lugubre* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 92.¹

Heterostoma brownii + var. *gracile* Haase, *Ibid.*, p. 94.²

?*Heterostoma viridipes* Pocock, Ann. mag. nat. hist., 1891, ser. 6, 7, p. 56.³

Heterostoma loriae Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 631.⁴

Heterostoma platycephalum Attems, Semon's Forschungsreise, 1898, 5, p. 509.⁵

Ethmostigmus platycephalus Pocock, Willey's Zool. results, 1898, pt. 1, p. 62.⁶

Pocock, Ann. mag. nat. hist., 1898, ser. 7, 1, p. 327.⁷ Ribaut, Abhandl.

Senckenb. gesellsch., 1912, 34, 284.⁸ Attems, Bijdr. dierk., 1915, 20, p. 4.⁹

LOCALITIES.—New Guinea:⁵ Jobi,¹ Dore,¹ Moroka.⁴ Kei Islands: Great Kei.⁸ New Britain.^{2, 6} Hermit Island.^{1, 2} Halmaheira.¹ Ternate.³ Ambon.⁹ Ellice Islands: Rotuma.⁷ Society Islands: Tahiti.¹ Union Islands: Atafu (Duke of York) Island.⁶

47. ETHMOSTIGMUS PYGOMEGAS (Kohlrausch).

Heterostoma pygomegas Kohlrausch, Archiv naturg., 1881, 47, p. 63.

Heterostoma rapax Attems, Semon's Forschungsreise, 1898, 5, p. 509.¹

LOCALITY.—New Guinea.¹

48. ETHMOSTIGMUS GRANULOSUS Pocock.

Wiley's Zool. results, 1898, pt. 1, p. 62.¹ Kraepelin, Revis. Scolop., 1903, p. 160.²

LOCALITIES.—New Guinea.² Union Islands: Atafu (Duke of York) Island.¹ New Britain.¹ Solomons: Narowol.¹

49. ETHMOSTIGMUS RUBRIPES (Brandt).

Scolopendra rubripes Brandt, Bull. sci. St. Petersb., 1840, p. 156.

Heterostoma sulcidens Kohlrausch, Archiv naturg., 1881, 47, p. 59.¹

?*Heterostoma crassipes* Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 632.²

Ethmostigmus rubripes Pocock, Ann. mag. nat. hist., 1901, ser. 7, 8, p. 459.³ Kraepelin, Revis. Scolop., 1903, p. 161.⁴ Fauna süd. Austr., 1908, 2, p. 108.⁵ Brölemann, Records Austr. Mus., 1912, 9, p. 44.⁶ Kraepelin, Arkiv zool., 1916, 10, no. 2, p. 8.⁷

LOCALITIES.—Queensland: Cooran, Cape York,³ Malanda, Belenden Ker, Yanobah, Herberton, Atherton, Cedar Creek, Cooktown, Mt. Tambourine, Christman Creek, Blackall Range, Colosseum,⁷ Cooktown (A. G. Mayer), Hope Island (A. G. Mayer), Condamine River,⁶ Thursday Island,⁴ Murray Islands, Mer (H. L. Clark). New South Wales: Paramatta, Sydney,³ Bourke⁶ Wilcannia.⁶ S. Australia: Adelaide.³ W. Australia: Swan River, Subiaco, Woorloo, Dongarra, Boorabbin, Shark's Bay,⁵ Kimberley District.⁷ Northern Territory: Port Essington,³ Fitzroy Island, Baudin Island.³ New Guinea: Moroka.² Dutch New Guinea (Thomas Barbour). Solomons.⁶ Australia.¹

50. ETHMOSTIGMUS CRIBRIFER (Gervais).

Scolopendra cribrifer Gervais, Insect. Apt., 1847, 4, p. 248.

Heterostoma cribriferum + var. *robustum* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 93.¹

Heterostoma cribriferum Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 631.² Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 478.³

LOCALITIES.—New Guinea, Jobi,¹ Mafoor¹ Island, Rubi.¹ Ceram:¹ Wahaai (Thomas Barbour). Halmaheira.^{1, 2} Gani (Thomas Barbour). Ternate,^{1, 3} Amboina.¹ Batjan. Oba.³ Kei Islands.¹ Pelew Islands.¹

51. ETHMOSTIGMUS VENENOSUS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 478. Kraepelin, Revis. Scolop., 1903, p. 159.¹

LOCALITIES.— Celebes.¹ Halmaheira.¹

SCOLOPENDRIDAE.

52. ASANADA BREVICORNIS Meinert.

Proc. Amer. philos. soc., 1886, **23**, p. 189.

Asanada socotrana Pocock, Bull. Liverpool mus., 1899, **2**, p. 9.

Asanada brevicornis Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 627.¹

LOCALITY.— New Guinea: Moroka, Hughibagu.¹

53. CUIPIPES PAPUANUS Attems.

Zool. jahrb. Syst., 1914, **37**, p. 381.¹

LOCALITY.— Dutch New Guinea.¹

54. CUIPIPES AMPHIEURYS Kohlrausch.

Archiv naturg., 1881, **47**, p. 79.¹

Cupipes quadrisulcatus Meinert, Proc. Amer. philos. soc., 1886, **23**, p. 187.²

Cupipes amphieurys Pocock, Willey's Zool. results, 1898, pt. I, p. 61.³

LOCALITIES.— Caroline Islands: Ponape.^{1, 2} New Britain.³

55. CUIPIPES NEOCALEDONICUS Kraepelin.

Revis. Scolop., 1903, p. 180.¹

LOCALITY.— New Caledonia.¹

56. CUIPIPES INERMIS Kraepelin.

Arkiv zool., 1916, **10**, no. 2, p. 9, fig. 3, 4, 4a.¹

LOCALITY.— Queensland: Cape York.¹

57. *CUPIPES IMPRESSUS* Porat.

Bih. Svensk. akad. Handl., 1876, 4, no. 7, p. 15.

?*Cupipes armatus* Daday, Term. füz., 1891, 14, 144.¹

?*Cupipes impressus* Ribaut, Abhandl. Senckenb. gesellsch., 1912, 34, p. 284.²

LOCALITIES.—New South Wales.¹ Aru Islands: Kobrur Island, Seltutti.²

This is primarily a West Indian and American species, and the identity with it of the forms here referred to is doubtful. Daday's species may be identical with Kraepelin's *C. neocaledonicus* in which case it would have precedence. Ribaut points out various minor differences of his single specimen from the Aru Islands from typical *C. impressus*.

58. *CUPIPES PROPULSUS*, sp. nov.

TYPE.—M. C. Z. 2,108. PARATYPES.—M. C. Z. 2,103, 2,104, 2,110, 2,114, 2,116. Solomons: Bulima, Wainoni Bay, Ngi, Auki, Fulakora, Tulagi, Malaita (interior) (W. M. Mann).

Color olive, with head more brown.

Cephalic plate finely punctate; with two sulci diverging forward and extending beyond middle, nearly attaining level of caudal edge of eye group; basal plates distinct. Antennae composed of seventeen articles of which the first five are glabrous and the sixth less densely hairy. Tergites margined from the ninth or tenth caudad; paired sulci distinct from the first to the twentieth; a median keel distinct though low from the third caudad, weaker on the second, a very obscure lateral keel also evident on each side of many of the plates. Each prosternal dental plate a little wider than long, with three teeth or the most mesal of these showing a slight tendency to divide. Prosternal plate with two fine sulci uniting at an angle in front and crossed by a transverse line which gives off branches. Ventral plates from the second to the twentieth with two complete longitudinal sulci. Last ventral plate strongly narrowed caudad; caudal margin very weakly incurved. Legs without tarsal spines. Anal legs enlarged as usual; femur with a single spine at distomesal angle above and one on mesodorsal edge between the distal one and the middle of length; ventral surface with four spinules in two widely separated rows of two each and mesal surface with three of which one, larger than the

others, is at the distal edge. Coxopleurae truncate behind, not at all produced; each with a single spinule at distomesal angle, otherwise unarmed.

Length, 38 mm.

59. *COLOBOPLEURUS INOPINATUS* Kraepelin.

Fauna südwest. Austr., 1908, 2, p. 109.¹

LOCALITY.—W. Australia: Karrakatta, near Perth.¹

This is the only non-African representative of the genus thus far known.

60. *CORMOCEPHALUS LAMPRUS*, sp. nov.

TYPE.—M. C. Z. No. 1,923. PARATYPE.—M. C. Z. 1,924. New South Wales: near Uralla, Salisbury Court (W. M. Wheeler).

General color brown, the head and first tergite darker, or in one specimen somewhat chestnut with anterior border of first and second tergite dusky; antennae and distal joints of the more posterior legs green.

Cephalic plate finely and not deeply punctate; two fine sulci diverging forward from caudal end but not reaching to middle. Antennae composed of sixteen articles; first four with sparse short hairs, then more dense from fifth distad. First dorsal plate overlapping the head in the middle, revealing basal plate at ends, without sulci. Complete sulci beginning on the second tergite. Margination of tergites not present until the seventeenth tergite. Last plate without a median sulcus. Prosternum with a fine and sometimes branched transverse sulcus near the anterior third; teeth 4 + 4, the three inner ones on each side basally fused, the outermost one widely removed. Ventral plates from second to twentieth with two complete longitudinal sulci. Last ventral plate strongly narrowed caudad, caudal margin incurved, corners rounded, three longitudinal impressed lines. Anal legs with femur below having two spines in the outer series, two or three in the mesoventral series, two above, and two at the caudal angle above.

Length, near 50 mm.

61. *CORMOCEPHALUS ESULCATUS* Poeock.

Ann. mag. nat. hist., 1901, ser. 7, 3, p. 458.¹

LOCALITY.—Victoria: Melbourne, Fern Tree Gully.¹ New South Wales: Wentworth (W. M. Mann).

62. CORMOCEPHALUS LAEVIPIES Pocock.

Ann. mag. nat. hist., 1891, ser. 6, 7, p. 67.¹LOCALITY.— Lord Howe Island.¹

63. CORMOCEPHALUS AURANTIPIES (Newport).

Scolopendra aurantiipes Newport, Ann. mag. nat. hist., 1844, 13, p. 99.¹*Cormocephalus gracilis* Kohlrausch, Archiv naturg., 1881, 47, p. 86.²*Cormocephalus aurantiipes* + var. *spinosus* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 57.³*Cormocephalus aurantiipes* Pocock, Ann. mag. nat. hist., 1901, ser. 7, 8, p. 455.⁴Kraepelin, Fauna südwest. Austr., 1908, 2, p. 116.⁵ Brölemann, Records Austr. mus., 1912, 9, p. 47.⁶ Kraepelin, Arkiv zool., 1916, 10, no. 2, p. 11.⁷LOCALITIES.— Australia.² Queensland: Gayndah,⁴ Atherton, Colosseum, Cape York.⁷ New South Wales: Sydney,⁴ Paramatta,⁶ Port Stephens.⁶ Victoria: Bendigo.⁴ S. Australia: Adelaide.^{3, 4, 7} Northern Territory: Port Essington.¹ W. Australia: Albany, Cranbrook,⁵ Perth,^{4, 5, 7} Champion Bay (Geraldton) York, Beverley, Swan River, Darling Range, Toowoomba.⁵

63a. CORMOCEPHALUS AURANTIPIES var. MARGINATUS Porat.

Cormocephalus marginatus Porat, Bih. Svensk. akad. Handl., 1876, 4, no. 7, p. 16.¹*Cormocephalus aurantiipes marginatus* Brölemann, Records Austr. mus., 1912, 9, p. 49.²LOCALITIES.— Australia.¹ New South Wales: Narrabri.²

63b. CORMOCEPHALUS AURANTIPIES SULCATUS Brölemann.

Records Austr. mus., 1912, 9, p. 49.¹LOCALITIES.— New South Wales: Bourke, Wilcannia.¹

64. CORMOCEPHALUS PUSTULATUS Kraepelin.

Revis. Scolop., 1903, p. 189, p. 127.¹LOCALITY.— New Caledonia.¹

65. *CORMOCEPHALUS RUBRICEPS* (Newport).

Scolopendra rubriceps Newport, Ann. mag. nat. hist., 1844, **13**, p. 99.
Cormocephalus purpureus Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 127.¹
Cormocephalus rubriceps Pocock, *Ibid.*, p. 128.² Kraepelin, Arkiv zool., 1916,
10, no. 2, p. 11.³

LOCALITIES.—Australia.¹ Queensland: Atherton, Herberton.³ New Zealand:¹ Maua Island,² Day's Bay (near Wellington), Taumarunni, 1914 (W. M. Wheeler). Loyalty Islands.

66. *CORMOCEPHALUS BREVISPINATUS* L. Koch.

Verh. Zool. bot. gesellsch. Wien, 1867, **17**, p. 248.¹ Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 12.²

?*Cormocephalus exiguus* Meinert, Vid. medd. Kjoben, 1886, 1884–1887, p. 132.³

LOCALITIES.—Australia.¹ Queensland: Rockhampton, Brisbane, Mt. Tambourine, Christmas Creek, Blackall Range.² New South Wales: Sydney.³

67. *CORMOCEPHALUS DISTINGUENDUS* Haase.

Abhandl. Mus. Dresden, 1887, **5**, p. 61.¹ Attems, Semon's Forschungsreise, 1898, **5**, p. 508.² Kraepelin, Fauna südwest. Austr. 1908, **2**, p. 117.³

Cormocephalus brevispinatus distinguendus Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 12.⁴

LOCALITIES.—S. Australia: Adelaide.^{1, 4} Queensland: Burnett District.² W. Australia: Shark's Bay, Champion Bay, Dongarra.³

68. *CORMOCEPHALUS WESTWOODI* (Newport).

Scolopendra westwoodi Newport, Ann. mag. nat. hist., 1844, **13**, p. 100.
Scolopendra puncticeps Gervais, Insect. Apt., 1847, **4**, p. 273.¹
Cormocephalus lanatipes Kohlrausch, Archiv naturg., 1881, **47**, p. 85.²
Cormocephalus westwoodi Pocock, Ann. mag. nat. hist., 1901, ser. 7, **8**, p. 457.³
 Brölemann, Records Austr. mus., 1912, **9**, p. 52.⁴ Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 12.⁵

LOCALITIES.—Queensland: Gayndah,^{2, 3} Mt. Tambourine, Glen Lanigton, Colosseum, Yandrina, Blackall Range, Atherton (near

Cairns).⁵ New South Wales: Sydney, Paramatta, Ashfield, Bondi, Rose Bay,³ Smithfield.⁴ Tasmania:^{1,4} Mt. Rumsey, Hobart,³ Wedge Bay (G. H. Hardy), Maria Island (G. H. Hardy).

68a. *CORMOCEPHALUS WESTWOODI* var. *FOECUNDUS* Newport.

Cormocephalus foecundus Newport, Trans. Linn. soc. London, 1845, **19**, p. 421.

Kohlrausch, Archiv naturg., 1881, **47**, p. 86.¹ Pocock, Ann. mag. nat. hist., 1893, ser. 6, **2**, p. 129.²

Cormocephalus westwoodi var. *foecundus* Kraepelin, Revis. Scolop., 1903, p. 201.³ Arkiv zool., 1916, **10**, no. 2, p. 13.⁴

LOCALITIES.—Australia.² Queensland: Rockhampton,² Mt. Tambourine, Christmas Creek, Blackall Range, Malanda.⁴ New South Wales: Sydney, Paramatta.¹ Victoria: Lake Elphinstone.¹ Tasmania:^{2,3}

69. *CORMOCEPHALUS STRIGOSUS* Kraepelin.

Fauna südwestw. Austr., 1908, **2**, p. 120, pl. 12, fig. 15;¹ Arkiv zool., 1916, **10**, no. 2, p. 15.²

LOCALITIES.—W. Australia: Perth and environs (*e. g.* Lion Mill, Gooseberry Hill, Wooroloo, Pickering Brook, York), Jarrahdale, Moora, Arrino, Northampton, Yalgoo, Day Dawn, Lake Austin;¹ S. Australia: Adelaide.²

70. *CORMOCEPHALUS VIOLASCENS* (Gervais).

Scolopendra violascens Gervais, Insect. Apt., 1847, **4**, p. 275.

Cormocephalus violaceus Newport (*non* Fabr.), Trans. Linn. soc. London, 1845, **19**, p. 424¹; Hutton, Trans. N. Z. inst., 1877, **10**, p. 289.³

?*Cormocephalus pallipes* Newport, *Op. cit.*, p. 424.²

Cormocephalus huttoni Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 128.⁴

Cormocephalus violascens Pocock, Willey's Zool. results, 1898, pt. 1, p. 60.⁵

Cormocephalus westwoodi huttoni Kraepelin, Arkiv zool., 1916, **10**, no. 2, p. 13.⁶

LOCALITIES.—Queensland: Gayndah, Rockhampton,⁵ Mt. Tambourine, Herberton, Malanda, Cedar Creek.⁶ Victoria. New Zealand:^{1,2,3} Wellington⁴ (W. M. Wheeler), Day's Bay (W. M. Wheeler), Waikonaito.⁴ Tasmania.² Loyalty Islands: Lifu, Uvea.⁵

71. *CORMOCEPHALUS TURNERI* Pocock.

Ann. mag. nat. hist., 1901, ser. 7, 8, p. 456.¹ Kraepelin, Fauna südw., Austr., 1908, 2, p. 114.²

LOCALITIES.—W. Australia: Perth,^{1, 2} Harvey, Shark's Bay (Edel Land, Tamala), Boorabbin, Kalgoorlie, Mt. Robinson, Champion Bay.²

71a. *CORMOCEPHALUS TURNERI YALGOOENSIS* Kraepelin.

Fauna südw. Austr., 1908, 2, p. 115.¹

LOCALITY.—W. Australia: Yalgoo, east of Champion Bay.¹

72. *CORMOCEPHALUS MICHAELSENI* Kraepelin.

Fauna südw. Austr., 1908, 2, p. 113, pl. 12, fig. 13.¹

LOCALITIES.—W. Australia: Albany, Bridgetown, Collie.¹

73. *CORMOCEPHALUS TRICUSPIS* Kraepelin.

Arkiv zool., 1916, 10, no. 2, p. 14, fig. 5.¹

LOCALITY.—Queensland: Atherton.¹

74. *CORMOCEPHALUS HARTMEYERI* Kraepelin.

Fauna südw. Austr., 1908, 2, p. 119, pl. 12, fig. 16.¹

LOCALITIES.—W. Australia: Albany, Torbay, Cranbrook, Broome Hill, Boyanup, Donnybrook, Bridgetown, Bunburry, Collie, Harvey, Pinjarra, Jarrahdale, Perth, Guildford.¹

75. *HEMICORMOCEPHALUS NOVAE HOLLANDIAE* Kraepelin.

Fauna südw. Austr., 1908, 2, p. 122, pl. 12, fig. 17.¹

LOCALITY.—W. Australia: Subiaco, Fremantle.¹

76. *SCOLOPENDRA MORSITANS* Linné.

Syst. nat., ed. 10, 1758, 1, p. 638. Kohlrausch, Archiv naturg., 1881, 47, p. 104, 109.¹ Silvestri, Ann. Mus. civ. Genova, 1894, 34, p. 625.³ Pocock, Weber's Reise, 1894, 3, p. 312.⁴ Attems, Abhandl. Senckenb.

gesellsch., 1897, **23**, p. 477.⁵ Semon's Forschungsreise, 1898, **5**, p. 508.⁶ Schneé, Zool. jahrb. Syst., 1904, **20**, p. 406.⁸ Kraepelin, Fauna südwest. Austr., 1908, **2**, p. 123.⁹ Brölemann, Records Austr. mus., 1912, **9**, p. 54.¹⁰ Ribaut, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 284.¹¹

Scolopendra morsicans Pocock, Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 325, 327.⁷

Scolopendra morsitans + var. *procera* + var. *sulcipes* Haase, Abhandl. mus. Dresden, 1887, **5**, p. 53, 54.²

LOCALITIES.—Queensland: Gayndah,¹ Burnett District,⁶ Rockhampton;^{1, 2} New South Wales: Sydney,¹ Bourke, Wilcannia.¹⁰ W. Australia: Shark's Bay (Baba Head, Tamala), Champion Bay (Northampton, Eradu), Moora, Day Dawn, Yalgoo, Coolgardie, Kalgoorlie.⁹ New Zealand: Lyell Bay (W. M. Wheeler). Flores: Endeh, Maumerie, Sikka.⁴ Saleyer.⁴ Timor.² Halmaheira.^{3, 4} Amboina.³ Ternate.⁴ Kei Islands:³ Great Kei, Little Kei.¹¹ New Guinea.^{2, 3} Dutch New Guinea (Thomas Barbour). Aru Islands: Terangan.¹¹ Banda Island.¹ Hervey Islands: Rarotonga,¹ Vau Vau, Eua.¹ Samoa:² Apia.³ Celebes.^{1, 4} Fijis: Viti;¹ Nacula, Yarawa Group, Hosea, Lau, Yanuaia, Vatoa, Sava Kasa, Viti Levu (W. M. Mann). Ellice Islands: Funafuti, Rotuma.⁷ Carolines: Ponape.¹ Marshalls.^{5, 11} Society Island.¹ Paumotus.¹

A species occurring widely in all tropical and subtropical regions but most abundant in the Asiatic and African regions.

77. SCOLOPENDRA SUBSPINIPES Leach.

Trans. Linn. soc. London, **11**, p. 383. Kohlrausch, Archiv naturg., 1881, **47**, p. 96, 99.² Latzel, Bull. Soc. zool. France, 1892, **17**, p. 185.⁴ Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 623.⁶ Pocock, Weber's Reise, 1894, **3**, p. 312.⁵ Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 477.⁷ Zool. jahrb. Syst., 1903, **18**, p. 81.⁸ Ribaut, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 284.⁹ Attems, Zool. jahrb. Syst., 1914, **37**, p. 380.¹⁰

Scolopendra repens Wood, Proc. Acad. nat. sci. Phil., 1861, p. 31.¹

Scolopendra meyeri Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 49.³

Scolopendra polydonta Daday, Math. term. Ertes. magyar akad., 1893, **12**, p. 5.

LOCALITIES.—New Zealand: Wellington (W. M. Wheeler). New Guinea:^{3, 7} Dutch New Guinea: Manokwari, Sorong (Thomas Barbour); Sermowai River, Javna, Humboldt Bay, Zoutbron, Kaiserin Augusta River, Hauptbiwok,¹⁰ Andai.⁶ Kei Islands: Great Kei.⁹

Aru Islands: Wammer Island, Meriri.⁹ Halmabeira.⁶ Gimia.⁵
 Flores: Sikka, Kotting.⁵ Celebes: Minahassa.⁷ Hervey Islands:
 Rarotonga, Avarua (W. M. Wheeler). Hawaiian Islands:² Oahu^{1, 8, 10}
 (William Waddoups). Society Islands: Tahiti^{2, 4} (ALBATROSS 1899
 Exped.). Samoa: Upolu (W. McM. Woodworth). Paumotus:
 Fakarava (ALBATROSS 1899 Exped.). Fijis: Suva (J. P. Jeppson),
 Munia, Suva Viti, Levu, Ono Lau, Levuka, Ovalau (W. M. Mann).

This species, while occurring throughout the warmer regions of the world, excepting in the Mediterranean region where it is replaced by the common European *S. cingulata*, is most abundant by far in the Oriental region. It is also abundant on the Pacific islands.

77a. *SCOLOPENDRA SUBSPINIPES* var. *MUTILANS* L. Koch.

Scolopendra mutilans Koch, Verh. Zool. bot. gesellsch. Wien, 1878, 27, p. 791.
 Attems, Semon's Forschungsreise, 1898, 5, p. 507.¹

LOCALITIES.— Queensland: Kuranda (H. L. Clark), Murray Islands (H. L. Clark). New Guinea.¹

78. *SCOLOPENDRA GRACILLIMA* Attems.

Semon's Forschungsreise, 1898, 5, p. 508, pl. 41, fig. 1. Chamberlin, Ent. news, 1914, 25, p. 390.¹

LOCALITY.— Ceram: Wahaai.¹
 Previously known from Java.

79. *SCOLOPENDRA LAETA* Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 51.¹ Brölemann, Records Austr. mus., 1912, 9, p. 60.³ Kraepelin, Arkiv zool., 1916, 10, no. 2, p. 16.³

Rhomboccephalus laetus Pocock, Ann. mag. nat. hist., 1901, ser. 7, 8, p. 454.²

LOCALITIES.— Australia.¹ New South Wales: Penrith.³ W. Australia: Perth,² Broome Hill, Streeters Station, Kimberley.³

79a. *SCOLOPENDRA LAETA* var. *VIRIDIS* Kraepelin.

Fauna südw. Austr., 1908, 2, p. 126.¹

LOCALITY.— W. Australia: Kooibana Bay, Perth.¹

79b. *SCOLOPENDRA LAETA* var. *FASCIATA* Kraepelin.Fauna südw. Austr., 1908, 2, p. 126.¹LOCALITY.—W. Australia: Shark's Bay.¹79c. *SCOLOPENDRA LAETA* var. *FLAVIPES* Kraepelin.Fauna südw. Austr., 1908, 2, p. 125.¹LOCALITY.—W. Australia: Yalgoo.¹80. *SCOLOPENDRA METUENDA* Pocock.Ann. mag. nat. hist., 1895, ser. 6, 16, p. 423.¹ Pocock, Willey's Zool. results, 1898, pt. 1, p. 60.² Brölemann, Records Austr. mus., 1912, 9, p. 53.³LOCALITIES.—New Guinea:^{1, 3} Narowal. New Georgia.²81. *SCOLOPENDRA* (?) *COERULEOVIRIDIS* Murray.Economic ent. Aptera, 1887, p. 27.¹LOCALITY.—Australia.¹A species of doubtful identity, probably belonging to *Cormocephalus* rather than to *Scolopendra*.82. *ARTHROPIABDUS MJÖBERGI* Kraepelin.Arkiv zool., 1916, 10, no. 2, p. 17, fig. 6-9.¹LOCALITY.—W. Australia: Kimberley District.¹

GEOPHILOMORPHA.

AZYGETHIDAE, fam. nov.

Like the *Gonibregmatidae* in having the labrum a single piece convexly protruding and dentate or pectinate along its entire width. Fulcrum of labrum a simple unbranched bar. Mandibles with a single pectinate lamella. Coxae of first maxillae separated. Last pediferous segment with coxae distinct from the pleurae, of nearly ordinary form, and bearing no pores; the pleural plates of the segment normal and a spiracle present.

AZYGETHUS, gen. nov.

Differing from the known genera of Gonibregmatidae in having the coxae of the first maxillae wholly discrete; both branches set off by sutures; lappets present (subcaudal). Coxae of second maxillae united at the middle; claw of palpus pectinate. Labrum rather long from side to side, bulging caudad evenly convexly at middle, densely finely toothed or pectinate throughout its width. Antennae short, strongly flattened, narrowing distad. A single row of suprascutella, none anteriorly. No ventral pores. Last coxae normally not at all enlarged, without pores. A small spiracle present on this segment. Anal legs seven-jointed, without claws.

GENOTYPE.—*Azygethus atopus*, sp. nov.

83. AZYGETHUS ATOPUS, sp. nov.

TYPE.—M. C. Z. 1,915. PARATYPE.—M. C. Z. 1,916. Fijis: Levuka (W. M. Mann).

In general color fulvous, a geminate dark stripe showing along the dorsum. Head and antennae light ferruginous.

Head short and broad, the anterior portion triangular, the apical angle being a little greater than a right angle.

Prehensors covered by cephalic plate excepting a little at base.

No prebasal plate.

Basal plate very wide, of equal width anteriorly and posteriorly, three and a third times wider than median length.

Prehensors and prosternum short, wholly unarmed, no chitinous lines.

Dorsal plates smooth, not distinctly sulcate.

Spiracles large, subelliptic or oblong, obliquely placed, the last one abruptly smaller and subcircular.

A single row of suprascutella excepting in anterior region and last segment.

Last ventral plate large, unmodified, trapeziform or somewhat pentagonal, the anterior margin forming a low angle at middle.

No anal pores.

Pairs of legs, seventy-one.

Length, 51 mm.

GONIBREGMATIDAE.

84. GONIBREGMATUS PLURIMPES, sp. nov.

TYPE.—M. C. Z. 1,988. Fijis: Lomati (W. M. Mann).

Color, fulvous.

Antennae proximally rather broad, flattened, gradually narrowing distad to middle, beyond which nearly uniform and cylindrical.

Prebasal plate exposed.

Basal plate broader than cephalic, bent somewhat forwards at ends.

Claws of prehensors when closed extending to end of first antennal article.

Spiracles vertical, slit-like.

Last ventral plate wider than long. Coxopleuræ as usual.

Anal legs very obviously exceeding the penult in length.

Pairs of legs, one hundred and ninety-one.

This species is more slender than *A. atopus* and has a larger number of pairs of legs. Aside from the family characters it is distinguishable in having the prescutum of the last leg-bearing segment separated off only by a weak sulcus, the fusion being nearly complete; sulcus bowed caudad as usual, rounded at middle. Also in having prebasal plate exposed, no frontal suture, and anal legs longer than penult.

85. GONIBREGMATUS FIJIANUS, sp. nov.

TYPE.—M. C. Z. 1,908. PARATYPES.—M. C. Z., 1,909, 1,958. Fijis: Nadarivatu, Vanua Ava (W. M. Mann).

General color fulvous throughout.

Head clearly broader than long (43:38); anterior border and posterior border subtriangular, the anterior margin mesally more rounded. Frontal suture present; also a suture across the caudal border. Clypeal region with a broad median longitudinal ridge; labrum strongly convex about caudal end of ridge.

First articles of antennæ flattened, broad, narrowing distad; distal article distally blunt.

Last ventral plate wider than long, posteriorly truncate, anteriorly convex.

Anal legs small, not exceeding the penult in length, last four articles essentially equal in length. Prescutum of last leg-bearing segment separated by a deep sulcus forming an obtuse angle with apex caudad.

Segments near one hundred and seventy-seven.

Length of type, near 150 mm.

86. GONIBREGMATUS ANGUINUS Pocock.

Wiley's Zool. results, 1898, pt. 1, p. 65, pl. 6, fig. 1.¹

LOCALITY.—New Britain.¹

87. GONIBREGMATUS INSULARIS Pocock.

Weber's Reise, 1894, 3, p. 318, pl. 19, fig. 9, 9b.¹

LOCALITY.—Saleyer.¹

TUOBA, gen. nov.

Labrum of one piece, bowed convexly as in *Gonibregmatus* but the teeth coarser and shorter, some of the median ones darker and more strongly chitinous than the others. First maxillae with outer branch or palpus distinct and well developed, biarticulate, with no lappets; coxae fused; inner branches of good size, not set off by suture. Coxae of second maxillae united, claws smooth. Antennae filiform. Prosternum with chitinous lines; claws short, not extending beyond anterior margin of head. No frontal suture. Prebasal plate not exposed. Dorsal plates bisulcate. No suprascutella. Last ventral plate wide. Coxopleural pores small, of moderate number. Anal legs composed of six joints beyond coxopleurae, armed with a claw.

GENOTYPE.—*T. curticeps*, sp. nov.

88. TUOBA CURTICEPS, sp. nov.

TYPE.—M. C. Z. 2,166. PARATYPE.—M. C. Z. 2,167. Solomons: Pamua, Wainoni Bay (W. M. Mann).

Color yellowish to light ferruginous.

Cephalic plate short, as wide as long, sides only weakly curved; slightly narrower caudally than anteriorly; anterior margin very obtusely angular, each side straight; caudal margin more slightly angulate at middle.

Teeth of labrum coarser and correspondingly fewer than in other gonibregmatids; five teeth of median region dark, more strongly chitinized than the lateral ones.

Basal plate relatively short, posteriorly much exceeding the cephalic plate in width.

Chitinous lines of prosternum fine.

Claws of prehensors when closed nearly on a level with anterior margin of head. Each claw armed at base with a minute denticle, the other joints and the prosternum unarmed.

Spiracles all circular, small, the first larger than the second and the latter a little larger than the third.

Dorsal plates deeply bisulcate.

Ventral plates with a median longitudinal impression. Ventral pores in a band across caudal border. Last ventral plate very wide, strongly narrowed caudad, the caudal margin straight.

Anal legs of male moderately crassate proximally but tarsal joints slender.

Pairs of legs, in male forty-seven, in female forty-nine.

Length, 21 mm.

SCHENDYLIDAE.

89. ADENOSCHENDYLA FIJIENSIS, sp. nov.

TYPE.—M. C. Z. 1,959. PARATYPE.—M. C. Z. 2,160. Fijis: Vanua Ava (W. M. Mann).

Fulvous, head slightly darker, of very weak chestnut tinge.

Cephalic plate subquadrate, angles rounded, sides a little convex, caudal margin straight, anterior convex or subtriangular; only near once and a fourth as long as wide (9: 16); no frontal suture.

Antennae long, terete; last article about equalling the two preceding.

Labrum with near twenty-six teeth of which the lateral are less chitinous and more finely tipped, the median ones (ten in number) stout and dentiform. Divisions of dental plate of mandible apparently simple.

Prebasal plate not exposed.

Basal plate trapeziform, the exposed part three and a half times wider than long; measured from edge of cephalic plate to caudal edge overlapped by first tergite, about 2.7 times wider than long.

Prehensors rather weak, not attaining front margin of head, wholly unarmed.

Prosternum also unarmed; without chitinous lines.

Dorsal plates bisulcate. Last dorsal plate broad, shield-shaped.

Spiracles circular; first much larger than the second, the others decreasing gradually caudad.

Anterior ventral plates excavated in front, with a triangular peg from caudal margin of preceding plate fitting into the excavation, the processes getting smaller in going caudad. Last ventral plate broad, narrowed caudad, caudal margin mesally emarginate.

Ventral pores on the posterior middle part of the plate in a small subcircular or subelliptic area.

Pleural pores in two large pits on each side at the edge of the plate.

Anal legs composed of six articles beyond coxopleurae, joints long and slender; no claws.

Pairs of legs, fifty-nine to sixty-three.

Length, 50 mm.

This species is like the Brazilian *A. plusiodonta* (Attems) and unlike all other species in not having the prebasal plate exposed, but differs from that species in the simpler divisions of the dental plate, these not being dentate, the shorter prehensors, greater number of legs and other features. All the previously known species were from South America and the West Indies.

90. EUCRATONYX HAMATUS Pocock.

Wiley's Zool. results, 1898, pt. 1, p. 66, pl. 6, fig. 2c.¹

LOCALITY.—New Britain.¹

BALLOPHILIDAE.

91. BALLOPHILUS AUSTRALIAE, sp. nov.

TYPE.—M. C. Z. 2,16S. Queensland: Kuranda 2,000 ft., September, 1914 (H. L. Clark).

Unlike the type-species of Ballophilus, the Liberian *B. clavicornis*, which is deep violet or almost black in color, the present one is bright ferruginous, in life probably more red like various species of *Linotaenia*, though because of the readiness with which violet is lost in alcohol in various chilopods, this pigment may be present in this species in life.

Head appearing much like that of a *Linotaenia*; with no frontal suture.

Antennae moderate, clavate, the articles beyond the eighth being thickened; geniculate as usual.

Prebasal plate a little exposed, more on each side of middle than at middle.

Claws of prehensoral feet not reaching anterior margin of head. All joints unarmed. Basal plate broad, widest anteriorly. Anterior margin of prosternum concavely or subangularly excavated.

Labrum serrate, processes pale, large, somewhat irregular.

Body constricted a little ways back of the head in the usual manner; from there widening strongly to the posterior third of length and then again strongly attenuated caudad. The anterior region of the body appears extremely slender in comparison with the middle region.

Dorsal plates crossed longitudinally by many weak sulci between which they are elevated and roughened, and in part somewhat scabrous.

Ventral pores much more numerous than in *B. clavicornis*, densely arranged in an elevated, more strongly chitinous, transversely elliptic or oblong area on the posterior portion of plates; present on all plates from the second to the antepenult inclusive.

All spiracles small, circular.

Last ventral plate moderately wide, narrowed caudad.

Coxopleurae of anal legs much thickened; each bearing two pits opening at and lying partly beneath the edge of the ventral plate. Anal legs (male) strongly crassate but not clavate as in *B. clavicornis*, the proximal articles being thickest. No claw present, this being replaced with a slight membranous point. Six articles distad of coxopleura. Densely shortly pilose. Other legs not much differing in different regions of body, all rather slender.

Anal pores present, minute.

Pairs of legs, seventy-five.

Length, 38 mm.

92. BALLOPHILUS FIJIENSIS, sp. nov.

TYPE.—M. C. Z. 1,910. PARATYPES.—M. C. Z. 1,911. Fijis: Nadarivata (W. M. Mann).

Brown above, but laterally and ventrally shows a distinctly greenish tinge, the pore areas very dark, deep brown or blackish.

Head of usual general form, wider near middle and narrower caudally than in *B. australiae*.

Labrum with fewer and weaker serrations than in that species, in large part appearing smooth. Dentate plate of mandibles with five teeth.

Antennae of usual general clavate and geniculate form; last article longer than the two preceding together but shorter than the three preceding.

Prebasal plate distinctly exposed.

Basal plate nearly three times wider than long, angularly extended a little forward at middle.

Last ventral plate equal in length and breadth, narrowed caudad.

Anal legs strongly crassate as usual, somewhat clavate in male.

Coxopleural pores large, only inner edges covered by ventral plate.

Pairs of legs, eighty-one to ninety-one.

Length, up to 52 mm.

93. BALLOPHILUS PAUCIPES, sp. nov.

TYPE.—M. C. Z. 1,912. Fijis: Nadarivatu (W. M. Mann).

Dark brown in color above, paler at anterior and posterior ends, the ventral pore areas deeper in color; a greenish pigment, from deeper tissue, evident in a certain light.

This species is readily separable from the other species through its smaller size, much fewer pairs of legs and in not having a prebasal lamina evident. The antennae are shorter, distally broader in proportion to length. Coxopleural pores almost wholly covered by last ventral plate which is of usual general form. Anal legs short and very thick.

Pairs of legs, fifty-five.

Length, 16 mm.

ORYIDAE.

94. ORPHNAEUS BREVLABIATUS (Newport).

*Geophilus brevilabiatu*s Newport, Trans. Linn. soc. London, 1844, **19**, p. 436.

*Orphnaeus brevilabiatu*s Pocock, Weber's Reise, 1894, **3**, p. 317.¹ Attems,

Zool. jahrb. Syst., 1903, **18**, p. 201.³ Attems, Fauna süd. Austral., 1911,

3, p. 154.⁴ Ribaut, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 284.⁵

Orphnaeus phosphoreus Pocock (an Linne?), Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 325.²

LOCALITIES.—W. Australia: Helen River, Gooseberry Hill.⁴ Celebes: Tete-adj.¹ Flores: Maumerie.¹ Kei Islands: Great Kei.⁵ Solomons. Ellice Islands: Funafuti.² Marshalls: Ebon Island (L. B. Snow, 1877). Fijis: Nansori, Vanua Ava, Somo Somo, Saiaro, Vunisia (W. M. Mann). Aru Islands: Kabroor Island, Terangan.⁵ Society Islands.³ Hawaiian Islands.³

GEOPHILIDAE.

ZELANION, gen. nov.

This genus agrees with those in which a clypeal area is present and marked off clearly into numerous small polygonal areas, the polygonal areas elsewhere large and distinct. Median piece of labrum distinct, small, with few stout teeth (three in the genotype). The first maxillae have the outer branch biarticulate with the second greatly exceeding the first in length, the first article of branch with a scarcely detectable rudimentary lappet; coxa without lappet. Second maxillae with coxae separated by suture at middle, merely united by a membranous isthmus; claw of palpus long and stout, smooth, undivided. Prosternum without chitinous lines, anteriorly armed. Femuroid and claw of prehensors armed; prehensors extending much beyond the cephalic plate. No ventral pores. Last ventral plate narrow, (*Zelanion sens. str.*) or broad (*Zelanoides*, subgen. nov.) Coxopleural pores numerous, small, above and below (*Zelanion sens. str.*). Anal legs with a claw.

GENOTYPE.—*Z. dux*, sp. nov.

Differing from *Steneurytion Attem* in having the clypeal area marked off into distinct polygonal areas, and from the African *Sepedonophilus* in lacking processes from the inner angles of the second joints of the second maxillae.

95. ZELANION DUX, sp. nov.

TYPE.—M. C. Z. 1,901. PARATYPES.—M. C. Z. 1,902, 2,052. New Zealand: Plummerton, Day's Bay near Wellington, August, 1914 (W. M. Mann).

General color fulvous of ferruginous cast, the ferruginous deeper anteriorly. Head and prosternum deep ferruginous or somewhat chestnut.

Head much longer than wide; sides convex, over middle of length more or less flattened. Frontal suture present, weak.

Last article of antennae shorter than the two preceding taken together.

The cephalic plate extends much over the basal plate which, however, is

left more exposed at the sides; the basal plate is more than eight times wider than the length of the exposed area at the middle.

The claws of the prehensorial feet when closed extend much beyond the front margin of the head, in fact, the distal end of the femuroid lying well beyond the anterior end of the cephalic plate. Claws stout, curved, the inner edge crenulate, armed at base with a stout, long, black tooth. Second and third articles unarmed. Femuroid armed within a little caudad of distal end with a stout, bluntly rounded tooth.

Prosternum armed in front with two moderately long conical teeth.

First legs much shorter and more slender than the second.

Spiracles all circular, the first much larger than the second.

Last ventral plate narrow, decidedly longer than wide; sides straight, moderately converging caudad; caudal margin slightly convex.

Coxopleural pores small, moderately numerous but not dense, some concealed under the edge of the ventral plate, a few also occurring above at proximal end.

Anal pores very small.

Anal legs clothed ectally and above with numerous short setose hairs. Claw small.

Pairs of legs, forty-nine or fifty-one.

Length, 20 mm.

96. ZELANION LIBRIUS, sp. nov.

TYPE.—M. C. Z. 2,060. PARATYPE.—M. C. Z. 2,061. New Zealand: Lyell Bay (W. M. Wheeler).

Of ferruginous cast, the head and prehensors deeper.

Cephalic plate shaped much as in *Mecistocephalus*; narrowed gradually from a little in front of the middle caudad. On caudal portion two well-marked longitudinal furrows formed by coarse puncta and lying closer together than their own width. Plate I six times wider than long. Antennae moderate; last article shorter than the two preceding taken together.

Easily distinguished from the other species in having the exposed portion of the basal plate much longer, this in the type being 3.3 times wider than long.

Claws of prehensors when closed reaching to the end of the second antennal article. Tooth of claw slender and acute; that of femuroid very stout but short, distally broadly truncate.

Prosternal teeth rather close together, their inner edges only slightly divergent.

First legs shorter and more slender than the second.

Spiracles all circular, the first greatly exceeding the second in size.

Anterior ventral plates with a deep median longitudinal furrow. Last

ventral plate of intermediate width, trapeziform, strongly narrowed caudad; caudal margin short, straight.

Coxopleural pores not crowded, about sixteen in number on each side, distributed over ventral and lateral surfaces and anteriorly extending upon the dorsal surface. Claw of anal legs long.

Pairs of legs, forty-one.

Length, 32 mm.

97. *ZELANION CURTUS*, sp. nov.

TYPE.—M. C. Z. 2,057. New Zealand: Taumarunni (W. M. Wheeler).

This species is very similar in general coloration, appearance, and structure to *Z. dux*. The antennae are shorter and the last article equals the two preceding taken together instead of being clearly shorter. The cephalic plate is longer, being 1.6 times longer than wide as against 1.45 times in *dux*; the plate is also differently shaped, being more gradually and uniformly narrowed from near the middle caudad, the narrowing in *dux* beginning farther caudad and much more abrupt, making the caudal corner strongly oblique. Two furrows on posterior portion of plate impressed with puncta which are also scattered elsewhere.

Basal plate much overlapped by the cephalic, the exposed portion very short as in *Z. dux*. Prosternum and prehensors very similar to those of the other species. The prosternal teeth more divergent, the mesal edges separating more widely from the median line.

First legs proportionately much less reduced than in *Z. dux*, being scarcely shorter, though more slender, than the second.

A median longitudinal furrow deep and distinct on anterior sternites but absent farther caudad, not persisting distinctly as in *Z. dux*.

Coxopleural pores larger and fewer than in *Z. dux* and not extending to the dorsal surface.

The species has fewer legs,—thirty-nine pairs as against forty-nine or fifty-one in *Z. dux*.

Length, 24 mm.

98. *ZELANION (ZELANOIDES) SIMILIS*, sp. nov.

TYPE.—M. C. Z. 2,058. New Zealand: Day's Bay near Wellington (W. M. Wheeler).

Color of body and legs, fulvous; the dorsum darker, anteriorly and posteriorly of ferruginous tinge; head prehensors and antennae dilute ferruginous.

Cephalic plate one and a half times longer than wide. Frontal suture absent or obscure. Paired sulci absent. Puncta numerous, rather light, fewer or absent in frontal region. Plate narrowed gradually caudad from near middle much as in *Z. curtus*.

Basal plate much overlapped by the cephalic; the exposed portion nearly 4.4 times wider than long.

Prehensors when closed reaching beyond end of first antennal article. Prosternum without chitinous lines. Prosternum, femuroid, and claw bearing teeth, the latter below suture (trochanter) also with a slight rounded black tooth. Teeth of prosternum acutely pointed, apices widely separated, the interval between them being V-shaped. Distal tooth of femuroid stouter than that of claw.

First legs scarcely or not at all shorter or more slender than the second.

Spiracles all circular; the first much longer than the second.

Last ventral plate broad; sides straight, converging caudad; caudal angles rounded and caudal margin a little convex.

Coxopleural pores small, few, along and beneath border of last ventral plate, most in the type being covered.

Anal pores very small.

Anal legs with a stout, well-developed claw.

Pairs of legs, thirty-nine.

Length, 18 mm.

99. ZELANION (ZELANOIDES) PAUCIPES, sp. nov.

TYPE.—M. C. Z. 2,059. New Zealand: Day's Bay (W. M. Wheeler).

Very similar to the preceding species but differing in various details, Antennae shorter, the last article longer than the two preceding instead of shorter. Prosternal teeth conspicuously different; not divergent, but lying close together, only narrowly separated, distally rounded, not black. Tooth of claw of prehensors larger than that of femuroid. First legs proportionately smaller. Coxopleural pores few, chiefly along edge of plate which does not cover them as in *Z. similis*; a much smaller single pore above and caudad of these.

Pairs of legs, thirty-three.

Length of type, 12 mm.

100. EURYTION (STENEURYTION) SITOCOLA (Attems).

Geophilus (Pachymerium) sitocola Attems, Zool. jahrb. Syst., 1903, **13**, p. 256.¹

Eurytion sitocola Attems, Fauna süd. Austr., 1911, **3**, p. 161.²

LOCALITIES.—New Zealand.¹ W. Australia: Collie.²

101. EURYTION (STENEURTION) INCISUNGUIS Attems.

Fauna süd-w. Austr., 1911, 3, p. 160, fig. 13-15.¹LOCALITY.—W. Australia: Harvey.¹

102. PACHYMERINUS AUSTRALIS, sp. nov.

TYPE.—M. C. Z. 2,064. New South Wales: Southerland (W. M. Wheeler).

Fulvous; head and prehensors light ferruginous.

Cephalic plate without frontal suture. Broad, being only 1.4 times longer than wide; sides evenly convex with middle region flattened; anterior margin slightly triangular, being angular at middle; caudal margin slightly convex. Antennae short; distal article shorter than the two preceding together.

Claws of prehensors when closed reaching to middle of second antennal article.

Prosternum armed with two acute teeth. Femuroid with two teeth of which the distal is longer. Claw with a black tooth of about the same size as the distal one of the femuroid.

No prebasal plate exposed. Basal plate with exposed portion 3.33 times wider than long; strongly narrowed cephalad.

Middle piece of labrum triangular, not subtrapeziform as in *P. froggatti*, and also somewhat larger than in the latter species. The upper bars of the fulera more slender, much less narrowed ectad than in *froggatti*.

Lappets of outer branch of first maxillae longer than in the latter species.

Second maxillae similar; pores more freely open on mesal side. First legs very much smaller than the second which are equal in length to the third.

First spiracle much larger than the second, slightly vertically elliptic. The second of similar form but the others soon becoming strictly circular.

Ventral plates coarsely punctate.

Last ventral plate long and narrow, obviously longer than wide. Coxopleurae with small pores, thirty to forty in number, below, laterally and above, a few covered by edges of ventral plate; pores above are at anterior end.

Anal pores large and distinct.

Pairs of legs, seventy-one.

Length, 45 mm.

103. PACHYMERINUS FROGGATTI Brölemann.

Records of Austr. mus., 1912, 9, p. 61.¹LOCALITIES.—New South Wales: Penrith.¹ Queensland: near Brisbane (W. M. Wheeler).

104. GEOMERINUS CURTIPES (Haase).

Geophilus curtipes Haase, Abhandl. mus. Dresden, 1887, 5, p. 109, pl. 6, fig. 114.¹
Geomerinus curtipes Brölemann, Records Austr. mus., 1912, 9, p. 66.²

LOCALITIES.— Queensland: Rockhampton;¹ New South Wales: Paramatta.²

TASMANOPHILUS, gen. nov.

Very close to *Pachymerium*. Differs in first maxillae the outer branch of which is merely membranous distally, not subdivided or biarticulate and wholly lacks the outer lappet; coxae united at middle, ectally with a very short lappet. Second maxillae nearly as in *Pachymerium*; claw of palpus divided. Labrum with median piece much longer and with more numerous teeth (twelve in type-species). Lateral pieces of labrum closely pectinate. Prehensors approaching the *Geophilus* form, short and stout, armed within. Prosternum armed anteriorly. No frontal suture. Prebasal plate present. Last ventral plate of intermediate width. Pleural pores numerous, above, laterally and ventrally. Anal legs with claw.

GENOTYPE.— *T. tasmanianus*, sp. nov.

105. TASMANOPHILUS TASMANIANUS, sp. nov.

TYPE.— M. C. Z. 1,888. Tasmania (G. H. Hardy).

Antennae 2.5 times longer than the cephalic plate. Ultimate article somewhat shorter than the two preceding taken together.

Prebasal plate present, narrow. Basal plate short, trapeziform; three times or more wider than long; anterior margin concave.

Prehensors when closed scarcely exceeding the cephalic plate. Heavy, proportioned much as in *Geophilus*. The first joint very short on mesal side and the ectal length being about half the length of the prosternum; stout; armed on mesal side at distal end with a broad, low and blunt eminence or tooth.

Prosternum broader than long (about 4:3); anterior margin bearing two low blunt black plates or teeth; no chitinous lines.

Anterior spiracles large, all circular, decreasing gradually from the first caudad.

First legs very much more slender than the second.

Ventral plates with a longitudinal median sulcus in middle region, this deeper and broader, more pit-like, on anterior plates when it is circular in outline, basin-like. Last ventral plate broader than long, caudally rounded.

Ventral pores not detected.

Last coxopleurae inflated, with numerous small pores above as well as below and laterally.

Last legs of male stout, densely finely and shortly pilose beneath, above with sparse, longer hairs.

Pairs of legs, fifty-five.

Length, near 50 mm.

Superficially this species is like *Pachymerium ferrugineum* (C. Koch) in having the first dorsal plate as well as the succeeding ones bisulcate and in having a median longitudinal sulcus across the basal plate. It is a much more robust species with obviously shorter prehensors and the last ventral plate less narrowed caudad, broader across caudal border. A conspicuous difference is in the labrum, the median piece of which is longer and bears twelve long teeth as against only four in *ferrugineum* and another in the first maxillae in which the outer branch is undivided and lacks a lappet.

The cephalic plate is much longer than wide (*cir.* 35:29). It is widest behind the middle just in front of the widely obliquely rounded caudal corners. Each anterior corner angularly indented or emarginate. Caudal margin widely concave. No frontal suture.

PACHYMEROIDES, gen. nov.

A clypeal area present, this with distinct small polygonal areas; polygonal areas elsewhere large and distinct. Labrum tripartite, all pieces discrete; the lateral pieces encroaching upon the median piece laterally and in front but not meeting at the middle, pectinate; median piece bearing four teeth in type, at middle two stout teeth and a smaller one on each side. First maxillae with coxae completely fused; inner branch not separated; outer branch biarticulate, the first article with a rudimentary lappet; coxa with no lappet. Second maxillae with coxae weakly united at middle with a membranous isthmus, a median suture still evident; claw of palpus long and smooth. Prehensorial feet large, much exposed in dorsal view, extending much beyond the cephalic plate in front; claw and femuroid armed as is also the prosternum. Ventral pores not detected in type-species. Last ventral plate narrow. Coxopleurae with numerous small pores beneath. Anal legs with claws.

GENOTYPE.—*P. mimeticus*, sp. nov.

106. PACHYMEROIDES MIMETICUS, sp. nov.

TYPE.—M. C. Z. 1,889. PARATYPES.—M. C. Z. 1,890. Tasmania (G. H. Hardy).

General color deep ferruginous, the head and prehensors darker, more chestnut.

Body broad anteriorly, strongly narrowed caudad.

Cephalic plate much longer than wide (14: 9), widest anteriorly and strongly narrowed caudad as in *Mecistocephalus*; frontal suture weakly indicated. Cephalic plate overlapping the basal plate.

Basal plate trapeziform; exposed portion three times wider than the median length.

Claws of prehensors when closed reaching to about the middle of the second antennal article; outer height of femuroid more than half the length of the prosternum (7: 12); claw armed at base with a long, stout tooth, the second and third articles with paler nodular teeth, and the first article with a short stout tooth proximad of distal end and a smaller dark nodule between this and the proximal end.

Prosternum armed in front with two stout, plate-like, teeth; wider than long (cir. 31: 29).

Spiracles all circular, the first much the largest, the second somewhat intermediate, the others decreasing very gradually caudad.

Ventral plates with a median longitudinal sulcus beginning with the second. No ventral pores detected.

First legs shorter and much more slender than the second.

Last ventral plate narrow, longer than wide, (cir. 13: 11), narrowed caudad, the caudal end rounded.

Coxopleuræ bearing ventrally on each side about fifteen pores.

First two articles of anal legs beyond coxopleuræ bearing on ectal surface numerous short setose points densely arranged.

Anal pores distinct.

Pairs of legs, thirty-nine.

Length, 30 mm.

107. *PACHYMEROIDES ALTER*, sp. nov.

TYPE.—M. C. Z. 1,891. Tasmania: Wedge Bay (G. H. Hardy).

In general appearance very similar to the preceding species though lighter yellow in color excepting the head and prehensors with prosternum which are dilute chestnut.

At once distinguishable from the other species in the different form of the cephalic plate which is not conspicuously narrowed from the anterior end caudad; its sides are parallel from the rounded anterior corners caudad to near the caudal third, from where they converge to the rounded posterior corners.

The basal plate obviously less exposed than in *P. mimeticus*, the exposed area being four and a half times wider than long. The prehensors are very

similar in armature; but the principal tooth of the femuroid is nearer the distal end and the median nodule is not obvious.

The last ventral plate is decidedly different, being anteriorly as broad as long and much more strongly narrowed caudad.

Coxopleural pores fewer, arranged somewhat in a circle, the more mesal ones covered.

Anal pores distinct.

Anal legs with proximal joints bearing numerous short setose points as in *mimeticus*.

Pairs of legs, thirty-seven.

Length, about 23 mm.

MESOLEPTODON, gen. nov.

Clypeal area present but rather vaguely outlined in the genotype; with distinct polygonal areas. Labrum tripartite, the pieces discrete and not overlapping; lateral pieces pectinate; median piece small, triangular, the free edge chitinous with teeth, so far as evident, very fine. First maxillae with coxae mesally fused; outer branch biarticulate, the first joint with a long lappet, the second joint long. Coxae of second maxillae not fused at middle; palpus with joints lacking processes, claw smooth. Prehensors extending beyond front margin of cephalic plate. Femuroid and claw armed. Prosternum unarmed; without chitinous lines. Ventral pores in a transverse band in front of caudal margin. Last ventral plate wide. Coxopleural pores in form of two large pits on each side. Anal legs with claw.

GENOTYPE.—*M. lactus*, sp. nov.

108. MESOLEPTODON LAETUS, sp. nov.

TYPE.—M. C. Z. 2,063. New Zealand: Taumarunni (W. M. Wheeler).

Color fulvoferruginous, uniform.

Cephalic plate with sides evenly convex, widest at middle and about equally narrowing toward both ends, the latter both wide and subtruncate; one and a half times longer than wide. Something of a furrow along position of frontal suture but a true suture apparently not present. Antennae short; the last article a little longer than the two preceding taken together.

A prebasal plate present, but this separated from the cephalic only by means of a furrow. Basal plate, so far as not covered by the first tergite, 3.2 times wider than long.

Claws of prehensors when closed a little surpassing the distal end of the first antennal article.

Prosternum without chitinous lines; unarmed; anterior margin as a whole

concave. Claw armed at base with a dark, acute, conical tooth. Femuroid bearing at distal end a much smaller and paler tooth. Other joints unarmed.

Tergites bisulcate. In addition with two sulci toward each lateral border.

Spiracles circular, small, the first no larger than the second.

First legs much shorter and more slender than the second; the second legs of intermediate length.

Ventral pores numerous and distinct; in a transverse band in front of the caudal margin of plate, this band in the posterior plates tending to be divided at the middle line.

Last ventral plate very wide, subtrapeziform, the caudal margin a little convex. Coxopleurae each with two large pits adjacent to lateral edge of the ventral plate, each pit more or less doubled. Anal legs in the male moderately thickened; with numerous fine short hairs beneath; claw small.

Pairs of legs, sixty-one.

Length, 30 mm.

PHILOGEONUS, gen. nov.

Clypeal area present. Outer branch of first maxillae biarticulate, without lappets; coxae fused at middle, also without lappets. Coxae of second maxillae forming a narrow isthmus at middle in which a separating suture is still evident though weak; joints of palpus without processes, the claw smooth. Middle piece of labrum small; teeth absent or indicated merely as a few weak or obsolete crenulations. Prehensors extending well beyond front margin of head. Claw, femuroid, and the prosternum armed. Prosternum without trace of chitinous lines. No ventral pores. Last ventral plate very broad. Coxopleurae in genotype with three lobed pores on each side, these wholly covered by last plate. Anal legs with claw.

GENOTYPE.—*P. zelanicus*, sp. nov.

109. PHILOGEONUS ZELANICUS, sp. nov.

TYPE.—M. C. Z. 2,065. New Zealand: Lake Takopema, near Auckland (W. M. Wheeler).

Fulvous, with the head and prehensors pale chestnut.

Antennae short; the last article about equalling the two preceding taken together. Cephalic plate broad, the width being three fourths as great as the length; wide anteriorly and posteriorly, with the anterior margin convex, and the caudal straight or slightly incurved. No frontal suture.

Prebasal plate exposed at the middle. Basal plate broad, 3.33 times wider than long.

Claws of prehensors when closed reaching or surpassing the distal end of the first antennal article.

Prosternum short and broad as common in *Geophilus*; no chitinous lines; anterior margin bearing two dark, rounded teeth. Femuroid of prehensors with inner side short, armed at distal end with a conical tooth. Next two joints wholly unarmed. Claw armed at base with a black conical tooth larger than that of the femuroid.

First legs shorter and more slender than the second, the latter equalling the third.

No ventral pores.

All spiracles circular, the first larger than the second, the others decreasing very gradually.

Sulci of dorsal plates wide and shallow.

Last ventral plate very broad, with the caudal corners widely rounded; caudal margin mesally incurved. Coxopleural pores branched; three in number on each side covered by ventral plate.

Pairs of legs, forty-seven.

Length, 28 mm.

PHILOSOGUS, gen. nov.

Apparently close to *Philogeonus*, but differing in having the median piece of labrum obviously longer and armed with stout conical teeth which in the genotype are five in number and arranged in two series, and in the coxopleural pores. The latter are two in number on each side, the pits being simple unbranched tubules. Clypeal area present, distinctly marked off into small polygonal areas. First maxillae with coxae fused; both branches set off by suture, the outer one or palpus composed of two articles and without lappets. Coxae of second maxillae separated at middle, weakly united by a narrow isthmus only; claw smooth. Prehensors extending beyond front margin of head; femuroid and claw armed. Prosternum armed; without chitinous lines. Anal legs with six joints beyond coxopleurae; armed with a claw.

GENOTYPE.—*P. oligus*, sp. nov.

110. PHILOSOGUS OLIGUS, sp. nov.

TYPE.—M. C. Z. 2,168. New South Wales: Wentworth Falls (W. M. Wheeler).

Antennae moderate, one and a half times the length of the cephalic plate. The latter with caudal margin truncate, the anterior margin straight on each side but arched forward at middle, the sides slightly convex over most of length but more strongly rounding in at ends. Plate I. 43 times longer than wide.

Clypeal area small and pale, distinctly marked off into polygonal areas much smaller than those of the adjacent parts. Median piece of labrum

bearing a caudal series of three stout dark teeth of which the median is longest and just in front of these two other stout teeth, all teeth projecting more or less ventrad.

Basal plate largely overlapped by the cephalic; the exposed portion short, five and a half times wider than long, the covered part a little longer than the exposed.

Claws of prehensors when closed reaching to near end of the second antennal article; femuroid armed distally with a short blunt tooth and proximad of trochanter suture with an obscure one; claw armed at base with a long, distally obliquely truncate tooth which narrows but little distad.

Prosternum armed on anterior margin with two large, bluntly rounded processes or teeth which are but narrowly separated from each other.

First legs a little shorter and more slender than the second, the latter equalling the third.

No ventral pores.

Spiracles all circular, the first much the largest, the second intermediate.

Last ventral plate wide, strongly narrowed caudad, the margin forming an evenly convex curve about caudal corners and caudal end. Coxopleural pores covered by last plate.

Pairs of legs, thirty-seven.

Length, 19 mm.

ZELANOPHILUS, gen. nov.

Frontal suture present. No clypeal area present. In character of labrum suggesting *Pachymeroides* but the lateral pieces actually come in contact in the middle line; lateral pieces strongly pectinate; median piece more strongly chitinized, with numerous stout subconical teeth. Both divisions of first maxillae separated off; outer division biarticulate, the second article much exceeding the first in length; coxae chitinized throughout instead of only ectally, fused; no lappets present. Second maxillae of geophiloid form; short, coxae firmly united at middle, pore not enclosed mesally. Prehensors when closed but slightly exceeding the head; claw unarmed; femuroid armed; no chitinous lines present. Ventral pores present in a band caudad of middle of plates, numerous. Last ventral plate narrow. Coxopleural pores numerous, occurring dorsally as well as ventrally. Anal legs with claw, but the latter, in type, reduced.

GENOTYPE.—*Z. wheeleri*, sp. nov.

111. ZELANOPHILUS WHEELERI, sp. nov.

TYPE.—M. C. Z. 1,897. PARATYPES.—M. C. Z. 1,898. New Zealand: Wellington, Plummerton, August, 1914 (W. M. Wheeler).

General color above dilute ferruginous anteriorly, becoming more fulvous caudad. Head and prosternum deeper ferruginous. Legs fulvous. Antennae pale ferruginous.

Head broad, only a little longer than wide (5:4.5), subquadrate in general outline but widest near frontal suture from where it narrows moderately to the rounded caudal corners; caudal margin long, straight or slightly incurved. Frontal suture distinct. Antennae long, attenuated, last article shorter than the two preceding together.

Basal plate covered in front by the cephalic plate, broad, the exposed part more than five times wider than long.

Claws of prehensors when closed extending but little beyond the front margin of head, to near middle of first antennal article. Prehensors heavy. Claws unarmed. Femuroid with a blunt tooth at distal end within.

Anterior edge of prosternum presenting two chitinous margins but without true teeth or processes. Exposed part of prosternum decidedly wider than long (5:4).

Lateral pieces of labrum meeting at middle, apparently extending if not actually united with the median piece, pectinate, the prehensors long and fine; median piece or region more chitinous, darker, armed with nine stout teeth.

Coxae of first maxillae united; inner and outer processes united, the latter biarticulate with the second article much longer than the first; no lappets present.

Second maxillae with coxae fused, of geophiloid form.

Ventral pores numerous and fine; in a transverse area behind middle, this band widest at middle and narrowing laterad on each side.

First spiracle very large, vertically subelliptic, somewhat narrower ventrally; those following of similar form, large but decreasing gradually caudad, in posterior region becoming small and circular.

Dorsal plates bisulcate and with a finer median sulcus between the other two.

Last ventral plate long, narrow, narrowed caudad, sides and caudal margin straight. Coxopleurae with numerous small pores over entire surface above and below, but absent from caudal region of sides.

Anal legs composed of six articles distad of the coxopleurae; claw small; hairs of ventral surface fine and very short.

Pairs of legs, sixty-nine.

Length, 60 mm., evidently much shortened owing to preservation.

PACHYMERELLUS, gen. nov.

Form of head and prehensors much as in *Geophilus*. Clypeal area lacking as in *Insigniporus*; but clypeus in general with strongly marked polygonal areas. Claw and femuroid of prehensors armed. Prosternum also armed; with well-developed chitinous lines. Labrum tripartite with the median piece large, more strongly chitinous than lateral pieces, bearing numerous

(twelve in type) long, dark, fang-like teeth; free edge of median and lateral pieces forming an almost even concave line, the three pieces fitting closely together; lateral pieces densely pectinate. First maxillae with both branches separated off; the outer one biarticulate, with the two articles about equal in length, the first without lappet; coxae at middle membranous, being well chitinized only laterally, each bearing a long membranous lappet. Second maxillae with claw of palpus divided; coxae not completely fused at middle, a suture evident. Ventral pores lacking. Last segments as in *Pachymerium*. Last ventral plate small. Coxopleurae with numerous pores above, laterally and below. Anal legs with claws.

GENOTYPE.—*P. zygethus*, sp. nov.

112. PACHYMERELLUS ZYGETHUS, sp. nov.

TYPE.—M. C. Z. 1,892. PARATYPES.—M. C. Z. 1,893. Tasmania (G. H. Hardy).

Color yellow of a dilute ferruginous tinge.

Body widest anteriorly, narrowing continuously caudad.

Cephalic plate widest posteriorly, conspicuously narrowing cephalad. Anterior border convex, posterior border concave. No frontal suture. Antennae very short.

Basal plate overlapped anteriorly by the cephalic plate, the exposed portion broad and short, five times wider than long.

Prehensors stout. Claws when closed scarcely exceeding the cephalic plate. Femuroid very short on mesal side. Claw armed at base with a stout, low, conical tooth.

Prosternum with two blunt dentiform plates anteriorly; chitinous lines distinct excepting at extreme anterior end.

Anterior spiracles large, elliptic, the first largest though not greatly so, gradually decreasing in size caudad and gradually becoming circular.

Beginning with the second, the sternites are conspicuously marked with a median concavity or pit which increase in size and depth back to the ninth and tenth plates and then again decrease, practically disappearing after the sixteenth somite. No pores detected.

Last ventral plate small, shorter than wide, trapeziform, being narrowed strongly caudad and being caudally truncate. Coxopleurae inflated; bearing numerous small pores below and above and fewer ones laterally.

Anal pores small.

Pairs of legs, fifty-five.

Length, near 35 mm.

113. SOGOPHAGUS SERANGODES (Attems).

Geophagus serangodes Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 476.¹

LOCALITY.—Halmaheira: Soah Konorah.¹

114. *GEOPHILUS XYLOPHAGUS* Attems.Zool. jahrb. Syst., 1903, **18**, p. 237.¹LOCALITY.—New Zealand.¹115. *GEOPHILUS DUPONTI* Silvestri.Ann. Soc. ent. Belgique, 1897, **41**, p. 345.¹LOCALITY.—New South Wales: Sydney.¹116. *GEOPHILUS HARTMEYERI* Attems.Fauna süd. Austr., 1911, **3**, p. 158, f. 11, 12.¹LOCALITY.—W. Australia: Denham, Eradu, Albany.¹117. *GEOPHILUS (PLEUROGEOPHILUS) PROVOCATOR* Pocock.*Geophilus provocator* Pocock, Ann. mag. nat. hist., 1891, ser. 6, **8**, p. 225, pl. 12, fig. 10, 10ab.¹LOCALITY.—New Zealand: Wellington.¹118. *GEOPHILUS (?) CONCOLOR* Gervais.Ins. apt., 1847, **4**, p. 320.¹ Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 108, pl. 6, fig. 113.²*Necrophlocophagus concolor* Pocock, Ann. mag. nat. hist., 1901, ser. 7, **8**, p. 461.³LOCALITIES.—New South Wales: Port Jackson,¹ Sydney,² New England.³ Queensland: Rockhampton.² W. Australia: Perth.³Until the mouth-parts of this and the following species listed under *Geophilus* have been studied, it seems impossible accurately to refer them to their proper genera as these are now restricted.119. *GEOPHILUS (?) ANTIPODUM* Pocock.Ann. mag. nat. hist., 1891, ser. 6, **8**, p. 222, pl. 12, fig. 8.¹*Necrophlocophagus antipodum* Pocock, Ann. mag. nat. hist., 1901, ser. 7, **8**, p. 461.²LOCALITIES.—Victoria: Fern Tree Gully.² New Zealand: Maungatua, Wellington.¹

120. *GEOPHILUS* (?) *SYDNEYENSIS* Pocock.

Ann. mag. nat. hist., 1891, ser. 6, 8, p. 219.¹

LOCALITY.—New South Wales: Port Jackson, Inner Double Bay.¹

121. *GEOPHILUS* (?) *OPINATUS* (Newport).

Arthonomalus opinatus Newport, Trans. Linn. soc. London, 1845, 19, p. 433.¹
Necrophlocophagus opinatus Pocock, Ann. mag. nat. hist., 1901, ser. 7, 8, p. 461.²

LOCALITIES.—Australia.¹ Victoria: Gippsland;² New South Wales: Narre Warren.²

122. *GEOPHILUS* (?) *SPENCERI* (Pocock).

Necrophlocophagus spenceri Pocock, Ann. mag. nat. hist., 1901, ser. 7, 8, p. 462.¹

LOCALITIES.—New Zealand: South Island, the Bluff.¹

123. *GEOPHILUS* (?) *LATICEPS* Pocock.

Ann. mag. nat. hist., 1891, ser. 6, 8, p. 220, pl. 12, fig. 6, 6a.¹

LOCALITY.—Australia: Bass Strait, King's Island.¹

124. *GEOPHILUS* (?) *MORBOSUS* (Hutton).

Himantarium morbosum Hutton, Ann. mag. nat. hist., 1877, ser. 4, 20, p. 115.¹
Geophilus morbosus Pocock, Ann. mag. nat. hist., 1891, ser. 6, 8, p. 221, pl. 12, fig. 7, 7a.²

LOCALITY.—New Zealand:^{1, 2} Wellington.²

125. *GEOPHILUS* (?) *POLYPORUS* Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 110, pl. 6, fig. 116.¹

LOCALITY.—New Guinea: D'Urville Island.¹

126. PACHYMERIUM PERFORATUM (Haase).

Geophilus concolor var. *perforatus* Haase, Abhandl. Mus. Dresden, 1887, 5, p. 109.¹

Geophilus (Pachymerium) perforatus Attems, Zool. jahrb. Syst., 1903, 18, p. 252.²

LOCALITY.—Queensland: Gayndah.^{1, 2}

127. PACHYMERIUM SCHAUINSLANDI Attems.

Geophilus (Pachymerium) schauinslandi Attems, Zool. jahrb. Syst., 1903, 18, p. 251.¹

LOCALITIES.—Stephens Island. Chatham Island.¹

128. MAORIELLA MACROSTIGMA Attems.

Zool. jahrb. Syst. 1903, 18, p. 284, pl. 14, fig. 26–28.¹

LOCALITY.—New Zealand: North Island.¹

129. MAORIELLA AUCKLANDICA Attems.

Zool. jahrb. Syst. 1903, 18, p. 285.¹

LOCALITY.—New Zealand: Auckland, Bay of Island.¹

CHILENOPHILIDAE.

130. POLYGONAREA WHEELERI, sp. nov.

TYPE.—M. C. Z. 2,069. Queensland: Koak (W. M. Wheeler).

Last article of the antennae obviously shorter than the two preceding taken together.

Form of cephalic plate much as in the following species.

The coxal process of the second maxillae is less acute, more finger-like than in the two species mentioned. Differing from *P. repanda* in not having any process on the second joint of the palpus of the second maxillae.

Prosternum of the usual general form; anterior margin without teeth, though what looks like the truncate base of one is shown on the right side.

Femuroid with tooth round, low, nodular, that of trochanter division obscure; tooth of claw as usual.

Anterior spiracles large, vertically elliptic, the first larger than the second though not greatly so; others gradually decreasing in going caudad and soon becoming circular.

Last ventral plate broader than in other species; sides convex, converging. Caudal border densely clothed with fine short hairs; caudal margin straight. Coxopleural pores completely covered, well removed mesad from edge of plate, opening into two pits on each side. No anal pores.

Pairs of legs, sixty-five.

Length, 48 mm.

The species is like *P. darrana*, sp. nov. and *P. repanda* Attems in lacking pores on the first ventral plate. Those of the second plate in a circular area not much smaller than that of the third.

131. POLYGONAREA DERRANA, sp. nov.

TYPE.—M. C. Z. 2,068. Queensland: Dana, near Brisbane (W. M. Wheeler).

Fulvous, darker above; head and prehensors chestnut.

Last article of antennae about equal to the two preceding taken together.

Cephalic plate 1.47 times longer than wide. Plate slightly constricted in front of position of frontal suture, the latter, however, being absent; anterior margin mesally weakly indented; all corners oblique; caudal margin straight.

No prebasal plate. Exposed portion of basal plate short, 3.7 times wider than long.

Claws of prehensors when closed reaching to distal end of second antennal article.

Prosternum long, sides parallel; chitinous lines incomplete anteriorly; anterior margin armed with two well separated, distally rounded teeth. Femuroid of prehensors bearing a low rounded tubercle at distal end; trochanter or basal division with an obsolete nodular tooth; intermediate joints unarmed; claw with a dark conical tooth.

Coxa of each second maxilla at mesodistal angle with the usual long acute process, the joints of palpus without processes.

Ventral pores in the usual circular area on anterior plates, the form in posterior ones more transverse and tending to divide. Pores on the second sternite forming a distinct circular area but this much smaller than that of the succeeding sternite.

First legs much shorter than the second, the latter equal to the third.

Spiracles all circular, the first much larger than the second, the others decreasing gradually caudad.

Last ventral plate broad, narrowed caudad, with the caudal margin nearly straight; caudal border somewhat depressed. Coxopleural pores opening into two pits on each side at edge of and partly covered by the last ventral plate.

No anal pores.

Pairs of legs, fifty-one.

Length, 31 mm.

132. *POLYGONAREA IMPARATA* Attems.

Fauna südsw. Austr., 1911, **3**, p. 161, fig. 16.¹

LOCALITIES.—W. Australia: Lion Mill, Mundaring, Subiaco, Karrakatta, Fremantle, Collie, Boyanup, Pickering Brook.¹

133. *POLYGONAREA REPANDA* Attems.

Fauna südsw. Austr., 1911, **3**, p. 163, fig. 17.

Polygonarea repanda multipes Attems, *Ibid.*, p. 163.¹

LOCALITY.—W. Australia: Woorloo, Mundaring, Fremantle, Serpentine, Cannington, Jarrahdale.¹

Attems separates this species into two subspecies for each of which he gives a name different from that of the species. Since one subgenus must retain the name of the species, I here place the subspecies *multipes* as a synonym of *P. repanda sens. str.*

133a. *POLYGONAREA REPANDA CONIFERA* Attems.

Fauna südsw. Austr., 1911, **3**, p. 165.¹

LOCALITY.—W. Australia: Yalgoo, Dongarra, Mundijong, Brunswick, Bridgetown, Gooseberry Hill, York, Broome Hill, Cranbrook.¹

134. *SCHIZORIBAUTIA AGGREGATUS* Brölemann.

Proc. Linn. soc. N. S. W., 1906, **40**, p. 683.¹

LOCALITY.—New South Wales.¹

MECISTOCEPHALIDAE.

135. MECISTOCEPHALUS NIGRICEPS, sp. nov.

TYPE.—M. C. Z. 1,904. PARATYPES.—M. C. Z. 1,905, 1,913, 1,932, 1,956, 1,961, 1,965, 1,987, 2,012, 2,017, 2,018, 2,135, 2,136, 2,138, 2,155–2,158. Fijis: Nadarivatu, Nasoqo, Lakeba Lau, Labasa, Somo Somo, Lasena, Lomati, Nansori, Wainganitu, Vanua Ava, Vunisia, Suva, Turuca. Solomons: Auki, Florida, Pamua, Fulakora (W. M. Mann).

This species has a very characteristic color appearance on account of the generally black head, prosternum, prehensors, basal and first dorsal plates, and antennae, and the somewhat brownish appearance of the dorsal plates each of which is typically crossed over the caudal border by a darker band. The head is of the usual long and narrow form, being nearly 1.88 times longer than wide; it is widest anteriorly, narrowing caudad gradually to near the posterior third and then more strongly to the truncate caudal end. The frontal suture, unlike that in *M. tenuiculus*, is very clearly evident throughout. Behind the suture and converging gently to the caudal margin are two rows of coarse, deeply impressed puncta which often give the impression of lying in continuous sulci. In front of the suture a pair of coarse puncta and in front of each of these a long seta. Anterior margin of head at middle subangularly emarginate. Lateral pieces of labrum with margins wholly smooth and even; middle piece abruptly narrowed at caudal end, but little widening cephalad from there. Mandibles with nine laminae which are dentate throughout, the teeth smaller toward base; first lamina with only five teeth; external angle simple, not lacinate. Basal plate with a large shallow puncture or pit on each side toward the anterior corner; a few much finer puncta on the more posterior region. Prosternum with very sparse fine puncta; anterior oblique border crossed by two dark chitinous bands projecting anteriorly as slight teeth between which is an emargination. The femuroid is armed at distal end with a long, stout, distally blunt black tooth and the usual smaller one proximad of the oblique suture. The second and third articles with blunt black distally rounded nodules or teeth. The tooth at base of claw small, low, broadly subconical. Dorsal plates of middle and posterior region strongly bisulcate and roughened, scabrous or corniculate, the anterior five or six plates smooth excepting for the deep puncta; paired sulci not present on first plate. Ventral plates each with a deep median longitudinal

sulcus over about its posterior two thirds, this faintly bifurcate anteriorly but conspicuously differing from the strong Y-shaped impression of, *e. g.*, *punctifrons*. Last ventral plate subtrapeziform, much less strongly narrowed caudad than in *punctifrons*, the caudal margin convex, each lateral border incurved near middle and again between middle and caudal end, the region caudad of second emarginations more depressed, densely finely hairy, the second region intermediate, similarly clothed, separated by a depression from the anterior region which is convexly elevated and clothed more sparsely with longer, coarser hairs. Inner aporous band of coxopleurae broader than in *punctifrons*, oblanceolate in outline, densely finely hairy; pores of coxopleurae much fewer and larger than in *punctifrons*; no distinct longitudinal sulcus or suture dorsally. Last dorsal plate much broader than in *punctifrons*, somewhat shield-shaped, the anterior margin being a little concave, the lateral ones convex and converging and the caudal end rounded. The posterior border a lighter area over which are lines suggesting the lines of the palm of the hand or fingers formed by dark chitinous areas arranged in rows; similar markings along caudal borders of other dorsal plates also occurring. Scutum over genital region with numerous densely arranged dark polygonal areas not arranged in lines. Anal pores present, distinct.

Pairs of legs, forty-nine.

Length, up to 45 mm.

136. MECISTOCEPHALUS ANGUSTIOR, sp. nov.

TYPE.—M. C. Z. 2,062. Society Islands: Tahiti (W. M. Wheeler).

Pale ferruginous, the head and prehensors deep ferruginous. Cephalic plate 1.87 times wider than long. Differing in form from that of *M. punctifrons*, being smaller, proportionately narrower anteriorly, so that the sides converge caudally much less strongly; margin widely rounded anteriorly between the ends of the frontal suture, incised mesally between bases of antennae. Puncta absent from frontal region, few elsewhere. Two short parallel furrows in caudal region, these embracing puncta; closer together than their width. Ventral teeth of head close to lateral edge on each side, black, slender and acute. Femuroid of prehensors with two blunt, rounded teeth, a distal one and one proximad of the oblique suture. Claw and intermediate joints also armed. Anterior ventral plates each with a v-shaped impression in which the side arms are very short; in the middle and

posterior regions the impression is a simple linear furrow, the arms being quite obliterated. Paired dorsal sulci beginning on the basal plate and present on tergites from there caudad. Last ventral plate rather broad, trapeziform, the caudal margin rounded. Coxopleurae scarcely encroaching on preceding segment; pores fine and numerous. Last dorsal plate long and narrow, caudally rounded.

Pairs of legs, forty-nine.

Length, about 27 mm.

137. *MECISTOCEPHALUS ERYTHROCEPS*, sp. nov.

TYPE.—M. C. Z. 1,906. PARATYPE.—M. C. Z. 1,907, 1,914. Fijis: Nadarivatu, Levuka (W. M. Mann).

As compared with *M. nigriceps* or *punctifrons* this is a decidedly more slender species of nearly uniform width over the anterior half, the posterior region attenuated. It is a much paler species, the body in general being uniform light yellow, the head and prosternum with prehensors reddish, the first tergite paler. The head with a pair of short longitudinal sulci in front of caudal margin, the plate in front of this with weak puncta not forming well-marked lines as in *nigriceps*. Labrum with mesal angles of lateral pieces rounded, not at all produced, their margins wholly smooth. Dorsal plates clearly bisulcate from the first inclusive caudad. None roughened, tuberculate or scabrous. Median sulcus of ventral plates sharply defined, bifurcation anteriorly obscure as in *nigriceps*. Last ventral plate proportionately wider than in *nigriceps*, not laterally emarginate, surface of uniform character, caudal margin rounded. Last tergite proportionately narrower than in *nigriceps*, not shield-shaped, sides more weakly convex. Non-porigerous ventral region of coxopleurae wide, oblanceolate.

Pairs of legs, fifty-one.

Length, to 31 mm.

138. *MECISTOCEPHALUS KURANDANUS*, sp. nov.

TYPE.—M. C. Z. 2,066. Queensland: Kuranda (Wm. M. Wheeler).

This species is easily distinguished from all others known in the character of the labrum. The lateral pieces have the margin wholly lacking cilia; but the mesal end of each is conspicuously crenate, the most mesal of the seven or eight crenations of each piece being more

dentiform than the others. The median piece of labrum is caudally much narrowed, the lateral pieces touching, or nearly so, ventrad of its apex. The mandible bears nine laminae which are dentate throughout, with the distal teeth longer than the proximal ones excepting on the first lamina which bears six teeth differing but little in length. Cephalic plate near 1.8 times longer than wide. The sternal sulcus bifurcate anteriorly, the angle of the fork rectangular or nearly so. Coxopleurae of the usual general type with numerous small pores. Head and prehensorial segment chestnut, the body brown with obscure dusky mottlings. Young specimens show a greenish tinge posteriorly.

Pairs of legs, forty-nine.

Length of type, 84 mm.; greatest width, 3.2 mm.

139. MECISTOCEPHALUS SIMPLEX, sp. nov.

TYPE.—M. C. Z. 2,067. Queensland: Cairns (W. M. Wheeler).

Superficially this species differs from the preceding one, *M. kurandanus*, in having the anterior angle of the sternal impressions of the anterior segments obtuse instead of rectangular. The lateral pieces of the labrum have the margin wholly without crenations such as characterize *kurandanus*. In the type the mandibles have seven pectinate lamellae; these are dentate to the base with teeth increasing in length from base distad. Head 1.66 times longer than wide. Prosternal teeth acute. Teeth of femuroid of prehensors stout and bluntly rounded. Pores of coxopleurae very numerous, small, with no specially enlarged ones. Head and prehensors chestnut, the body otherwise fulvous.

Pairs of legs, forty-nine.

Length of type, 40 mm.

140. MECISTOCEPHALUS MIMETICUS, sp. nov.

TYPE.—M. C. Z. 148. PARATYPES.—2,149–2,153, 2,854, 2,855. Solomons: Fulakora, Tulagi, Auki, Wai-ai, Ngi, Pamua, Wainoni Bay (W. M. Mann).

This species is remarkably like *M. nigriceps* in general appearance and structure excepting in having the number of pairs of legs constantly forty-seven instead of forty-nine. It has the head, prehensorial segment, antennae, and one or two more anterior segments similarly black and the caudal plates dark brown with the caudal

borders often darker. It is on the average a smaller species, but parallels the other closely in details. The mandibles, however, have but six laminae instead of nine, with the first one bearing six teeth; external angle with three or four setiform processes instead of being simple. Labrum less angular at middle.

Length of largest type, 30 mm.

141. *MECISTOCEPHALUS LIFUENSIS* Pocock.

Wiley's Zool. results, 1898, pt. 1, p. 63.¹

LOCALITY.—Loyalty Islands: Lifu.¹

142. *MECISTOCEPHALUS MAXILLARIS* (Gervais).

Gephilus maxillaris Gervais, Ann. sci. nat., 1837, ser. 2, 7, p. 52.

Lamnonyx maxillaris Silvestri, Records Indian mus., 1919, 16, pt. 1, no. 5, p. 61.¹

LOCALITIES.—New Guinea: Simbang; Sattelberg.¹

143. *MECISTOCEPHALUS MODESTUS* (Silvestri).

Lamnonyx modestus Silvestri, Records Indian mus., 1919, 16, pt. 1, no. 5, p. 68, fig. XIII, 1-10.¹

LOCALITY.—New Guinea: Sattelberg.¹

144. *MECISTOCEPHALUS INSULARIS* (Lucas).

Gephilus insularis Lucas, Maillard's Reunion, ed. 2, 1863, Annex N, pl. 21, fig. 1.

Lamnonyx punctifrons glabridorsalis Attems, Zool. jahrb. Syst., 1900, 13, p. 138¹; Bijdr. dierk., 1915, 20, p. 4.²

LOCALITY.—Ceram: Honitetu.² Otherwise recorded only from the Seychelles.¹

145. *MECISTOCEPHALUS CASTANEICEPS* Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 102, pl. 6, f. 109. Pocock, Ann. mag. nat. hist., 1898, ser. 7, 1, 327.¹

LOCALITY.—Ellice Islands: Rotuma.¹

Otherwise known from the Andamans, Christmas Island, and Pulo Edam.

146. *MECISTOCEPHALUS SPISSUS* Wood.

Journ. Acad. nat. sci. Phil., 1863, ser. 2, 5, p. 43.¹

Lamnonyx spissus Silvestri, Fauna Hawaiiensis, 1904, 3, p. 326;² Records Indian mus., 1919, 16, pt. 1, no. 5, p. 75, fig. XIX, 1-10.³

LOCALITIES.—Hawaiian Islands: Oahu or Kauai;¹ Maui: Haleakala; Molokai: Kau; Kauai: Halemanu;² Hawaii: Kilauea.³

This species has otherwise been definitely recorded from Burma and Sumatra by Pocock (Ann. Mus. civ. Genova, 1891, 30, p. 424) who notes it is not uncommon in the Indo-Malayan area (Weber's Reise, 1894, 3, p. 317).

147. *MECISTOCEPHALUS TAHITIENSIS* Wood.

Journ. Acad. nat. sci. Phil., 1863, ser. 2, 5, p. 43.¹ Haase, Abhandl. Mus. Dresden, 1887, 5, p. 101.²

Mecistocephalus tahitiensis pororus Haase, *Ibid.*, p. 102.³

Lamnonyx tahitiensis Attems, Fauna südwest. Austr., 1911, 3, p. 158.⁴

Lamnonyx tahitiensis Silvestri, Records Indian mus., 1919, (16), pt. 1, no. 5, p. 47, fig. XVIII, 1-12.⁵

LOCALITIES.—Society Islands: Tahiti.¹ Queensland: Gayndah, Rockhampton.² New South Wales: Loftus.⁵ W. Australia: Tamala, Northampton, Eradu, Wooroloo, Lion Mill, Guildford, Subiaco, Jarrahdale, Collie, Bunburry, Donnybrook, Gooseberry Hill, York, Cranbrook, Torbay; Albany.⁴ Fijis: Viti Levu.³ New Guinea: Sattelberg.⁵

148. *MEGETHMUS FERRUGINEUS* (Hutton).

Himantarium ferrugineum Hutton, Ann. mag. nat. hist., 1877, ser. 4, 20, p. 115.

Geophilus huttoni Pocock, *Op. cit.*, 1891, ser. 6, 8, p. 223.¹

LOCALITY.—New Zealand: Wellington.¹

DASYPTYX, gen. nov.

Differing from *Mecistocephalus sens. str.* in having the mandibular laminae dentate only distally and the portion proximad of the teeth with margin densely ciliate to base instead of dentate throughout. It also differs in having the lateral pieces of the labrum densely ciliate throughout instead of being wholly smooth.

GENOTYPE.—*D. solomonensis*, sp. nov.

Includes also *D. gigas*, *subgigas*, and *uncifer*. New Guinea seems to be the center of distribution of this group.

149. *DASYPTYX SOLOMONENSIS*, sp. nov.

TYPE.—M. C. Z. 2,147. Solomons: Ngi, Wainoni Bay, Tulagi, Fulakora (W. M. Mann).

In this species the number of mandibular laminae is large, being twenty-three to twenty-six in the specimens examined. It otherwise differs from *gigas*, *subgigas* and *uncifer* in the much greater length of the marginal cilia of the laminae, these equalling or exceeding the width of the stalk instead of being very much shorter; and also in the obviously greater length of the distal teeth which are fewer and of which the more proximal ones are less reduced in length. Cephalic plate longer than wide in the ratio 1.53:1, being thus shorter than in the related forms. The teeth of the prehensors are short and stout and are often concave on the proximal edge but never truly uncate as they are in *uncifer*; claws only moderately curved, the edges wholly smooth. The coxopleurae lack any single specially enlarged pores such as are present in *subgigas*. Color of head and prehensorial segment chestnut, the remaining portion of body brown.

Pairs of legs, forty-nine.

150. *DASYPTYX GIGAS* (Haase).

Mecistocephalus gigas Haase, Abhandl. Mus. Dresden, 1887, 5, p. 105, pl. 6, fig. 111.¹ Attems, Abhandl. Senckenb. gesells., 1897, 23, p. 475.²

Mecistocephalus punctifrons gigas Attems, Bijdr. dierk., 1915, 20, p. 5.³

Lamnonyx gigas Silvestri, Records Indian mus., 1919, 16, pt. 1, no. 5, p. 69.⁴

LOCALITIES.—New Guinea, or near it.¹ British New Guinea: Fife Bay.⁴ Halmiaheira.² Ceram: Honitetu.³

151. *DASYPTYX SUBGIGAS* (Silvestri).

Lamnonyx subgigas Silvestri, Records Indian mus., 1919, 16, pt. 1, no. 5, p. 70, f. XV, 1-7, XVI, 1-9.¹

LOCALITY.—New Guinea: Simbang, Sattelberg.¹

152. *DASYPTYX UNCIFER* (Silvestri).

Lamnonyx crucifer Silvestri, Records Indian mus., 1919, 16, pt. 1, no. 5, p. 12, fig. XVII, 1-9.¹

LOCALITY.—New Guinea: Moroka.¹

ECTOPTYX, gen. nov.

First lamella of mandible with teeth numerous, eighteen or more; mesal margin below this lamella smooth or at most with but few and weak serrations. Median lamellae of mandible dentate to base, with the distal teeth long but the median and proximal ones very short. The labrum characterized by having the lateral pieces notably strongly extended caudad at mesal ends, the mesal angles acute and extending much caudad of lateral region of labrum; along the outer portion of each lateral piece a dense line of cilia extends beyond free caudal margin, giving the appearance of fringed margin. Otherwise as in *Mecistocephalus*, etc.

GENOTYPE.—*E. labasanus*, sp. nov.

The first lamella of the mandible suggests that of the Indian *Pauroptyx* Chamberlin though the number of teeth is always greater and the extensive serration of the mesal margin below it is missing or but weakly suggested. Readily distinguished from the other known genera by the characteristic form of the labrum and the presence of the ciliary bands along ectal portions.

153. *ECTOPTYX LABASANUS*, sp. nov.

TYPE.—M. C. Z. 2,140. Fijis: Nagasu (W. M. Mann). PARATYPES.—M. C. Z. 1,952, 1,953, and 2,141. Fijis: Labasa, Suene (W. M. Mann).

Body brownish, densely marked above with a network of black, the same also less strongly evident on pleurae and sternites, the network on dorsum sometimes forming a denser, broad median longitudinal band. Head and prehensors chestnut.

Head with anterior margin subtruncate or very slightly and very obtusely produced forward, notched at middle. The anterior corners oblique. Sides converging moderately from frontal suture caudad to the more strongly narrowed posterior region. Caudal margin nearly straight, very slightly convex. Head about 1.6 times longer than wide. Areolated region of clypeus longer than the paired, non-areolated, posterior areas. A very small median chitinous spot present.

Labrum with line of cilia showing from outer end on each side about half way to median end. Median piece rather broadly cuneate but with sides, excepting toward anterior end, weakly incurved, convex; the anterior edge bulging forward convexly; the length less than twice the greatest width, the ratio being near 32:17.

Mandible with fourteen lamellae of which the ordinary ones have the distal teeth long and the median and proximal ones very short. First lamella with eighteen to twenty teeth, these reduced regularly from the distal ones proximad. A median lamella with about thirty-seven teeth.

Ectal angle of coxa of first maxilla produced slightly ectad of cephalad, acute. Posterior corners of coxosternum of second maxillae acutely and considerably extended; pores moderately large, suboval; a median non-areolate band set off from lateral non-areolate regions.

Prosternum armed. Prehensors with the typical teeth. Claw at base with a single nodule or tooth. Femuroid with proximal tooth small, the distal one greatly exceeding it, much as in *Mecistocephalus philippinus* Chamb. though the disproportion is not so great; conical, narrowly rounded distally. The next two articles armed, the tooth of the second much exceeding that of the first.

Sternal impressions furcate, the angle obtuse.

Ventral plate of pregenital segment strongly narrowed caudad, notched on each side in front of caudal end. Coxopleural pores very numerous, small and very small, the pores of the two sizes typically not much differing in number.

Pairs of legs, forty-nine.

Length, to about 55 mm.

154. ECTOPTYX KABASANUS, sp. nov.

TYPE.—M. C. Z. 2,049. Fijis: Kabasa Lau (W. M. Mann).

Dorsum, and to a less marked degree the pleurae and sternal region, darkened by a network and mottling of black as in *F. labasanus*, the pregenital segment and anal region in the type abruptly paler and a median pale line evident on dorsum in posterior region. Head and prehensors chestnut.

Head of same general form and proportions as in *labasanus*, with the clypeal region similar.

Labrum with line of cilia exposed on each side as in *labasanus*. Median piece similarly broadly cuneate, but the sides straight or incurved, not convex, and the piece only slightly more than once and a half longer than the greatest width.

The species is readily distinguished by the characters of the mandible. Nineteen lamellae are present. The median ones have the distal teeth long and the others shortened in the typical manner. First lamella with twenty-three teeth which are reduced proximad. A median lamella with about fifty-five teeth. Margin below first lamella smooth.

Ectal angle of coxa of first maxilla produced, the process somewhat more robust than in *F. labasanus*. Coxosternum of second maxillae with a median chitinous, non-areolated band separated from lateral regions. Pore angular in outline.

Armature of prosternum and prehensors normal. The teeth of femuroid lower and broader than in the preceding species, the distal one greatly exceeding the proximal one, broadly conical, the width at base exceeding the height. Teeth of next two joints rounded, the second the larger. Claw with a robust, rounded, bulging prominence at base.

Sternal impressions furcate, the angle obtuse.

Sternite of pregenital segment more moderately narrowed caudad, notched on each side a little in front of caudal end as in the preceding form. Coxopleural pores very numerous, small and minute.

Pairs of legs, forty-nine.

Length of type, about 75 mm.; width of first plate, 3 mm.

155. ECTOPTYX TURUCANUS, sp. nov.

TYPE.—M. C. Z. 2,137. Fijis: Turuca (W. M. Mann).

Coloration in general similar to that of the preceding species, the same network and marbling in black being present.

Head of same general form as that of preceding species but relatively broader, in the type only about 1.4 times longer than broad. Clypeal region of same general character.

Labrum with ciliary line exposed at each side. Median piece cuneate, the sides straight and the anterior margin convex at middle much as in *E. kabasanus*; once and a half, or somewhat less, as long as greatest width.

Mandible with thirteen lamellae of which the outermost is greatly reduced, being little more than a slender, acute point with vague serrations. The first lamella with nineteen teeth not stouter than those of the other lamellae, gradually decreasing caudad. Teeth of a median lamella about eighteen in number.

Ectal angle of coxa of first maxilla produced forward. Coxosternum of second maxillae with median area as usual. Pores narrowly and longitudinally subelliptic in outline.

Teeth of prosternum and prehensors nearly as in *E. labasanus*.

Sternal impressions furcate, the angle as a whole obtuse, more nearly rectangular toward apex.

Ventral plate of pregenital segment somewhat more strongly narrowed caudad than in *E. kabasanus*, notched as usual. Coxopleural pores as usual.

Pairs of legs, forty-nine.

Length, 45 mm.

156. *ECTOPTYX SOMONUS*, sp. nov.

TYPE.—M. C. Z. 2,139. Fijis: Somo Somo (W. M. Mann).

Coloration of the usual type.

Head of the ordinary general form, 1.6, or slightly less, times longer than wide. The clypeal region lacks the small median chitinous spot present in the preceding species and the areolated region is more extensive.

Labrum with ciliary lines as usual. Median piece somewhat oblanceolate in outline, the lateral margins evenly convex; much narrower proportionately than in the preceding forms, being in the type about 2.3 times longer than the greatest width.

Mandible with eleven lamellae inclusive of the two reduced and modified ectal ones. The first has nineteen teeth. These are of almost uniform length, not being notably reduced in length proximad as in *E. turucanus*, etc. The margin below the first lamella is very minutely serrate for a short distance. A median lamella has the teeth reduced proximad as usual; number not precisely determined, but near forty.

Ectal angle of first maxilla scarcely at all produced, the corner being subrectangular or only slightly acute. Areas of coxosternum of second maxillae as usual.

Teeth of prosternum low and rounded. Teeth of prehensors normally developed.

Sternal impressions furcate but the branches short and weak, sometimes not easily seen, the angle obtuse.

Sternite of pregenital segment narrowed caudad as usual, lateral notching toward caudal end in the type scarcely evident. Coxopleural pores very numerous and small as usual.

Pairs of legs, forty-nine.

Length, 48 mm.

157. *ECTOPTYX SIARONUS*, sp. nov.

TYPE.—M. C. Z. 2,142. PARATYPES.—M. C. Z. 2,150, Fijis: Viti Levu, Saiaro (W. M. Mann).

Color much as usual. The black network on dorsum very dense, a median dorsal yellow line present in posterior region.

Head nearly 1.75 times longer than wide. Clypeal region with no small median chitinous spot such as present in the first three species (p. 65-67).

Labrum with ciliary lines conspicuously showing over outer two thirds or more of free margin on each side. Median piece much narrower than in the three species (p. 65-67); exposed area narrowly oblanceolate or spatulate; a narrow median part of anterior margin bulging forward; nearly three times as long as greatest width.

Mandible with sixteen or seventeen lamellae. Of these the first has nineteen teeth as in *E. turucanus*, these decreasing less in length proximad than in that species. A median lamella with near forty-two teeth, these proportioned nearly as in *E. turucanus*. Inner margin below first lamella entire, not at all serrate.

Teeth of prosternum and prehensors normal. Distal tooth of femuroid larger than the proximal one, but not proportionately so large as in, *e. g.*, *E. labasanus*. Teeth of next two joints rounded. Claw with a small rounded tooth in addition to the principal basal angulation.

Sternite of pregenital segment nearly as in *E. labasanus*. Coxopleural pores exceedingly numerous, small and minute.

Sternal impressions strongly furcate, the branches long, the angle obtuse.

Pairs of legs, forty-nine.

Length, to 90 mm.

LITHOBIOMORPHA.

HENICOPIDAE.

158. LAMYCTES TASMANIANUS, sp. nov.

TYPE.—M. C. Z. 2,152. Tasmania (G. H. Hardy).

General color above bright chestnut or almost cherry-red. A dusky line along the middorsum and the plates also irregularly bordered with the same. Head dusky back of ocellus on each side and across caudal border. Legs light brown, the last pairs bright yellow distally.

Prosternal teeth small, 2 + 2.

Antennae broken off in type, one entirely, the other beyond the sixteenth joint.

Posterior angles of none of the dorsal plates at all produced, the corners rectangular or narrowly rounded. Posterior margin of fourteenth tergite weakly incurved, that of the fifteenth more strongly so.

Coxal pores small but distinct, 4, 4, 4, 3.

Claw of female gonopods entire as usual, stout. Basal spines 2 + 2; short, subconical.

Length, nearly 9 mm.

Readily distinguished from *L. fulvicornis* Meinert, which it somewhat resembles, in the more elongate and obviously more slender tarsal joints, in having prosternal teeth 2 + 2 instead of 3 + 3, etc. Accessory claws much smaller than the principal, not approaching this in size as in *L. africana* Porat.

159. LAMYCTES ZELANDICUS sp. nov.

TYPE.—M. C. Z. 1,896. PARATYPES.—2,035. New Zealand: Wellington, Tarawera Lake, Naiwa (W. M. Wheeler).

General color of dorsum brown of slightly reddish cast; legs and antennae fulvous.

Head subcordate, anteriorly mesally emarginate, a sulcus extending from emargination caudad to frontal suture.

Prosternal teeth distinct, acute, 2 + 2, the median sinus wide v-shaped, shallow.

Coxal pores very small, 2, 2, 2, 2 (1).

Basal spines of female gonopods 2 + 2.

Posterior angles of none of the dorsal plates at all produced, caudal margins straight.

Tarsal joints of anal legs abruptly considerably more slender than the metatarsus; first tarsal joint six times as long as thick.

Length (female type, not quite fully mature), 4.8 mm.

This species differs clearly from *L. fulvicornis* in the much more slender tarsal joints of the anal legs and in the shorter antennae composed of only twenty-two articles. It is obviously smaller than the Tasmanian species above described and is unlike *L. africana* in having the accessory claws of the legs very small.

160. LAMYCTES NAVAIANUS, sp. nov.

TYPE.—M. C. Z. 2,133. PARATYPES.—2,134. Fijis. Navai (W. M. Mann).

Very similar to *L. munianus* but a smaller, less robust species. The color a little lighter brown without distinct darker markings excepting about eyes where black is pronounced. Antennae very short, composed of fewer articles, normally twenty-three or twenty-five. Prosternal teeth small, 2 + 2, the median incision somewhat less acute than in *munianus*. Caudal margins of ninth, eleventh, and thirteenth dorsal plates wholly straight. Tarsi as usual as are also the tibial spurs. Coxal pores 2, 2, 2, 2. Basal spines of female gonopods short, acute 2 + 2. Gonopods of male short, straight, triarticulate, ending in a short seta. Anal legs longer and more slender than in *L. fulvicornis*, especially the tarsal joints. Accessory claws short.

Length of male, 5 mm.; of female, 4.5 mm.

161. LAMYCTES MUNIANUS, sp. nov.

TYPE.—M. C. Z. 1,985. Fijis: Munia (W. M. Mann).

Above brown, darker along caudal border and forward more or less in middle region; head and antennae ferruginous, the head dusky over caudal part and especially above and in front of each ocellus; body at caudal end also tending toward ferruginous.

Prosternal teeth 2 + 2.

Antennae short, articles twenty-eight.

None of dorsal plates with angles produced, the caudal margins of ninth, eleventh, and thirteenth wholly straight, those of posterior principal plates slightly incurved.

Anterior tarsi entire as usual, the thirteenth and more caudal pairs biarticulate. First twelve pairs of legs with tibial spurs, others without.

Coxal pores 3, 3, 3, 3.

Basal spines of female gonopods short, acute, 2 + 2.

Length, 6 mm.

162. LAMYCTES EMARGINATUS (Newport).

Henicops emarginatus Newport, Ann. mag. nat. hist., 1844, **13**, p. 96.¹

Lamyctes emarginatus Archey, Trans. proc. N. Z. inst., 1917, **49**, p. 308, fig. 6-9.²

LOCALITIES.—New Zealand:¹ Riccarton, Christchurch.²

163. LAMYCTES FULVICORNIS Meinert.

Nat. tidskr., 1868, **5**, p. 266.

Lamyctes fulvicornis Attems, Fauna südwest. Austr., 1911, **3**, p. 150.¹

LOCALITIES.—W. Australia: Day Dawn, Mundaring Weir, Pinjarra, York, Beverley.¹

This species seems to be principally a Palaearctic species, being widespread in Eurasia and North America.

163a. LAMYCTES FULVICORNIS HAWAIIENSIS Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 325.¹

LOCALITIES.—Hawaiian Islands: Hawaii: Kona.¹

164. LAMYCTES AFRICANUS (Porat).

Henicops africanus Porat, Öfvers. vet. ak. Förh., 1871, p. 119.

Lamyctes africana Attems, Fauna südsw. Austr., 1911, 3, p. 150.¹

LOCALITIES.—W. Australia: Kalgoorlie, Donnybrook, Cranbrook, Albany.¹

165. LAMYCTES NEOZELANICUS Archey.

Trans. proc. N. Z. inst., 1917, 49, p. 309, fig. 10–12.¹

LOCALITIES.—New Zealand: Waipara, Canterbury.¹

166. LAMYCTES CHATHAMENSIS Archey.

Trans. proc. N. Z. inst., 1917, 49, p. 309, fig. 13–15.¹

LOCALITY.—Chatham Island.¹

167. LAMYCTES KERMADECENSIS Archey.

Trans. proc. N. Z. inst., 1917, 49, p. 311, fig. 16–17.¹

LOCALITY.—Kermadec: Sunday Island.¹

168. LAMYCTINUS COECLUSUS (Brölemann).

Lithobius coeculus Brölemann, Ann. Soc. Linn. Lyon, 1889, p. 271.

Lamyctinus cacculus Silvestri, Boll. Lab. zool. Portici, 1909, 4, p. 39.¹

LOCALITIES.—New South Wales: Sydney.¹ Hawaiian Islands: Oahu.¹

169. WAILAMYCTES TRAILLI Archey.

Trans. proc. N. Z. inst., 1917, 49, p. 312, fig. 18–24.¹

LOCALITIES.—New Zealand: Stewart Island, Waipara.¹

170. WAILAMYCTES HALLI Archey.

Trans. proc. N. Z. inst., 1917, 49, p. 313, fig. 25–27.¹

LOCALITIES.—New Zealand: Mt. Algidus, Rakaia Gorge.¹

171. PARALAMYCTES VALIDUS Archey.

Trans. proc. N. Z. inst., 1917, **49**, p. 314, fig. 28-35.¹

LOCALITIES.—New Zealand: Ohikaka, Ohakune,¹ Plummerton, Taumarunni (W. M. Wheeler).

The general color above dark chestnut with a median longitudinal darker stripe.

Head anteriorly truncate; a conspicuous median longitudinal sulcus from anterior margin caudad to beyond the frontal suture. Antennae moderate to long consisting of twenty-five articles, these mostly long.

Prosternum at middle anteriorly slightly concavely emarginate, gently convex on each side; teeth small, 6 + 6 to 9 + 9.

Thirteenth dorsal plate with caudal margin deeply concave; the ninth and eleventh plates caudally similarly emarginate but the curve somewhat deeper and more obtusely angular each side of the middle, more distinctly setting off the broad caudal processes; the sixth plate with caudal emargination deep but narrower than on the previously mentioned plates.

Tarsi of legs from first to fourteen pairs inclusive biarticulate. Fifteenth pairs missing. Tibial spur on first fourteen pairs of legs. Principal claw long; accessory claws small, less than half the length of the principal.

Last four pairs of coxae deeply furrowed along caudal porigerous surface, the pores concealed in ventral view much as in species of *Zygethobius*, small or moderate, uniseriate.

Basal spines of female gonopods 2 + 2.

Length, 14 mm. to 18 mm.

172. PARALAMYCTES DUBIUS Archey.

Trans. proc. N. Z. inst., 1917, **49**, p. 314, fig. 36.¹

LOCALITY.—New Zealand: Rhodes's Bush, Port Hills.¹

173. PLEOTARSOBIUS HETEROTARSUS (Silvestri).

Lamyctes heterotarsus Silvestri, Fauna Hawaiiensis, 1904, **3**, p. 325.¹

LOCALITY.—Hawaiian Islands: Hawaii: Kona.¹

174. HENICOPS MACULATUS Newport.

Trans. Linn. soc. London, 1844, **19**, p. 372, pl. 33, fig. 27, pl. 40, fig. 3.¹ Poock, Ann. mag. nat. hist., 1901, ser. 7, **8**, p. 453.²

LOCALITIES.—New South Wales: Southerland (W. M. Wheeler); Victoria: Gippsland, Fern Tree Gully, Wood's Point Road, Loch.² New Zealand: Wellington,² Island Bay (W. M. Wheeler). Tasmania.^{1, 2}

175. HENICOPS DENTATUS Pocock.

Ann. mag. nat. hist., 1901, ser. 7, 8, p. 454.¹

LOCALITY.—W. Australia: Perth.¹

176. HENICOPS OLIGOTARSUS Attems.

Fauna südw. Austr., 1911, 3, p. 150.¹

LOCALITIES.—W. Australia: Woorloo, Lion Mill, Mundaring Weir, East Fremantle, Jarrahdale, Brunswick, Bridgetown, Boyanup, Gooseberry Hill, Beverley, Albany.¹

177. HENICOPS (?) IMPRESSUS (Hutton).

Trans. N. Z. inst., 1877, 10, p. 288.¹

LOCALITY.—New Zealand: Dunedin, Queenstown.¹

178. HAASIELLA INSULARIS (Haase).

Henicops insularis Haase, Abhandl. Mus. Dresden, 1887, 5, p. 36.¹

LOCALITY.—New Zealand: Auckland.¹

ANOPSOBIIDAE.

TASMANOBIUS, gen. nov.

Characterized by having spiracles only on somites three, ten, and twelve, and the thirteenth legs with tarsi biarticulate.

Its relationship to other genera of the family may be shown as follows.

- a. All tarsi undivided; third joint of anal legs unarmed.
Spiracles on third and tenth somites *Catanopsobius* Silvestri.
- aa. Last two or three pairs of legs with tarsi divided; anal legs with third joint bearing a stout spine.

- b. Spiracles on third, fifth, eighth, tenth, twelfth, and fourteenth somites.
Thirteenth tarsi biarticulate.....Anopsobius Silvestri.
- bb. Spiracles only on somites three, ten, and twelve.
 - c. Thirteenth tarsi entire.....Dichelobius Attems.
 - cc. Thirteenth tarsi biarticulate.....Tasmanobius, gen. nov.

GENOTYPE.— *T. relictus*, sp. nov.

179. TASMANOBIUS RELICTUS, sp. nov.

TYPE.— M. C. Z. 1,894. Tasmania (G. H. Hardy).

Color nearly chestnut throughout, legs and antennae scarcely paler.

Head narrowed forward in front of middle; a deep median longitudinal sulcus, hairs sparse and puncta few and indistinct. Antennae short, reaching upon third segment; composed of only fourteen articles.

Prosternum narrow anteriorly; teeth small and pale, 5 + 5.

Claws of legs long and slender, the accessory claws minute or obsolete. Coxae of fifteenth legs produced distally into a spinous process as in *Dichelobius*.

Coxal pores on last two pairs of coxae; 2, 2.

Gonopods of female of usual general structure; claw long and acute; basal spines 2 + 2, rather stout, subconical.

Length, 8.5 mm.

180. DICHELOBIUS FLAVENS Attems.

Fauna südw. Austr., 1911, 3, p. 154, fig. 1-10.¹

LOCALITY.— W. Australia: Eradu, Lion Mill, Jarrahdale, Donnybrook, Gooseberry Hill.¹

181. ANOPSOBIUS NEOZELANICUS Silvestri.

Boll. Lab. zool. Portici, 1909, 4, p. 45, fig. IV, 1-5.¹

LOCALITIES.— New Zealand: Wellington,¹ Hokianga,¹ Taumarunni, Day's Bay near Wellington, Kaori Forest near Swainson, and Plum-merton (W. M. Wheeler).

LITHOBIIDAE.

AUSTRALOBIUS, *gen. nov.*

Related to *Lithobius sens. str.* Antennae with but twenty-one or twenty-two articles in type. Ocelli few and large, in type 1 + 2, 2; single ocellus distinct, enlarged. Prosternal teeth numerous (*e. g.*, 5 + 5); no special cetal

seta or spine detected in type, if present being indistinguishable from other setae. Posterior angles of ninth, eleventh, and thirteenth dorsal plates produced. Coxal pores in single series on last four pairs of coxae. None of coxae armed laterally or ventrally; anal pair armed dorsally with a small spine. Anal legs with two claws; spining weaker than in *Lithobius*, the ventral spines being 0, 1, 3, 2, 0, while the dorsals are represented by the formula 1, 2, 2, 0, 0. Anal legs of male simply thickened, not bearing any special lobes.

GENOTYPE.—*A. scabrior*, sp. nov.

182. AUSTRALOBIUS SCABRIOR, sp. nov.

TYPE.—M. C. Z. 2,169. Queensland: Kuranda, September, 1914. (H. L. Clark).

General color above brown of a purple tinge. The head and first dorsal plate much darker, blackish, the former lighter in a band along the frontal suture. The anterior legs flavous, the posterior pairs chestnut.

Antennae short, articles twenty-one on one side, twenty-two on the other. Ocelli pale, all large, the single one largest, the upper seriate ones somewhat larger than the lower; 1 + 2, 2. Prosternal teeth small, strongly chitinized, dark, 5 + 5.

Posterior angles of ninth, eleventh, and thirteenth dorsal plates distinctly but only moderately produced. All tergites strongly margined laterally, the margins high, less strongly so caudally. Plates conspicuously roughened with folds and tubercular elevations, the latter especially strongly developed on the posterior plates. Each plate shows a strong median longitudinal furrow and on each side of this two or more others, these more or less oblique.

Coxal pores 3, 5, 5, 4, circular to weakly elliptic.

Ventral spines of penult legs, 0, 1, 3, 3, 2; dorsal, 0, 0, 3, 1, 0; claws 2. Dorsal spines of thirteenth legs 0, 0, 3, 2, 1, the tibial spine on the caudal side; of the twelfth, 0, 0, 3, 2, 1. First twelve pairs of legs having tibia armed above with but a single spine, this in all on the anterior side.

Length, near 12.2 mm.

183. AUSTRALOBIUS LORIAE (Silvestri).

Lithobius loriae Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 623.¹

LOCALITY.—New Guinea: Moroka.¹

The species is referred to *Australobius* with some doubt as only the female is known, whereas the genotype is a male.

WALESOBIUS, gen. nov.

Related to Australobius but differing in the more numerous articles of antennae (typically twenty-six to twenty-eight), in having the prosternal teeth only 2 + 2, and in having the fourth joint of the anal legs in the male with a special nodular process at its distal end. Posterior angles of ninth, eleventh, and thirteenth dorsal plates produced. Coxal pores in a single series on last four pairs of legs. Posterior coxae not armed laterally. Ventral spines of anal legs 0, 1, 3, 3 (2), 1. Claw of female gonopods partite; basal spines 2 + 2.

GENOTYPE.—*W. sydneyensis* (Pocock).

184. WALESOBIUS SYDNEYENSIS (Pocock).

Lithobius sydneyensis Pocock, Ann. mag. nat. hist., 1891, ser. 6, 8, p. 153.¹

LOCALITY.—New South Wales: Sydney.¹

185. LITHOBIUS ARGUS Newport.

Trans. Linn. soc. London, 1844, 19, p. 369.¹

LOCALITY.—New Zealand: near Wellington.¹

Newport regarded this species as very close to *L. forficatus* (Linné). From the other known lithobiid species of the Australian region it differs in the greater number of ocelli (twenty-eight or thirty on each side). The prosternal teeth are 5 + 5. Posterior angles of ninth, eleventh, and thirteenth dorsal plates produced (*vide* Pocock).

KAUABIUS, gen. nov.

This genus seems nearest the North American *Tidabius*. Antennae similarly composed of above twenty-five articles. Ocelli more numerous, seventeen to twenty-one in five series as against nine to fourteen in mostly three series. Prosternal teeth similarly 2 + 2. Angles of none of dorsal plates produced. In all known species of *Tidabius* the coxae are wholly unarmed and the spines of the anal legs above are fixed at 0, 0, 2, 0, 0, while the ventral are 0, 1, 3, 1, 0 or less often 0, 1, 3, 2, 0; in the type of the present genus the anal coxae are dorsally armed, while the dorsal spines of the anal legs are 1, 0, 3, 0, 0, and the ventral 0, 1, 3, 3, 1. The genotype is notably larger than the known species of *Tidabius*, being 16 to 20 mm. in length, while the known species of *Tidabius* never exceed 10 mm.

GENOTYPE.—*K. hawaiiensis* (Silvestri).

186. *KAUABIUS HAWAIIENSIS* (Silvestri).

Lithobius hawaiiensis Silvestri, Fauna Hawaiiensis, 1904, **3**, p. 324.¹

LOCALITIES.—Hawaiian Islands: Kauai: Makaveli, and Koholua-mano.¹

ETHOPOLIDAE.

187. *BOTHROPOLYS OAHUANUS*, sp. nov.

Lithobius asperatus Attems (non Koch), Zool. jahrb. Syst., 1903, **18**, p. 92.

A number of species occurring in Japan, China, the Philippines, etc., seem to have been confused under the name *L. asperatus* Koch. It is difficult to believe that the species described by Attems from the Hawaiian Islands (*Loc. cit.*) is the same as that described by him from Japan in 1909 (Arkiv zool., **5**, no. 3, p. 22). Of the first Attems states that the posterior angles of the seventh, ninth, eleventh, and thirteenth dorsal plates are produced, of the second that the sixth, seventh, ninth, eleventh, and thirteenth are produced, though some variability in the angulation of the sixth plate may be responsible for this. He gives the coxae of the last two pairs of legs in the Hawaiian form as unarmed ventrally, while they are armed in the Japanese form, the respective formulae for the anal legs being $\frac{1-2, 0, 2, 1, 0}{0, 1, 3, 1, 0}$ and $\frac{1, 0, 3, 1, 0}{1, 1, 3, 2, 1}$, and for the penult $\frac{1, 0, 3, 1, 0}{0, 1, 2, 1, 0}$ and $\frac{1, 0, 3, 1, 1}{1, 1, 3, 2, 1}$. Assuming Attems's observations to be accurate, it appears impossible that these two forms should be the same species. Furthermore, both differ from the original description by Koch and from that given by Haase (Abhandl. Mus. Dresden, 1887, **5**, p. 33) of Philippine specimens. Haase gives the ventral spines of the anal legs as 1, 1, 3, 2, 0, as does also Koch excepting that the latter fails to mention the spining of the first two joints. For the Hawaiian form I am here accordingly proposing a new name, to be used at least pending further elucidation of the Ethopolidae of Japan and the Pacific islands.

It seems also highly probable that the Japanese species described by Attems in 1903 is not the true *asperatus* of Koch and Haase, not only because of the marked difference in the spining of the legs as above indicated but also because of the fewer ocelli in the former, thirteen in three series as against nineteen to twenty-three in *asperatus*. The Japanese species described by Attems may accordingly bear the name *Bothropolys spinosior*, nom. nov.

188. *ETHOPOLYS RUGOSUS* (Meinert).

Lithobius rugosus Meinert, Nat. tidsskr., 1872, 3R., **8**, p. 306.¹

Lithobius xanti Stuxberg (an Wood?), Öfvers. Vet. akad. Förh., 1875, no. 3, p. 10.

LOCALITY.—Hawaiian Islands: Oahu.¹

Stuxberg (*Loc. cit.*, p. 20) identifies *rugosus* with the Californian species *E. xanti* (Wood); but until Hawaiian material is restudied the identity of the two forms must remain questionable.

CERMATOBIIIDAE.

189. CERMATOBIIUS MARTENSI Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 30, pl. 2, fig. 38.¹

LOCALITY.—Adenara Island.¹

CRATEROSTIGMORPHA.

CRATEROSTIGMIDAE.

190. CRATEROSTIGMUS TASMANIANUS Pocock.

Quart. journ. micros. sci., 1902, n. s., 45, p. 423.¹ Archey, Trans. proc. N. Z. inst., 1917, 49, p. 319, fig. 1-4.²

LOCALITIES.—Tasmania.¹ New Zealand: South Island.²

SCUTIGEROMORPHA.

SCUTIGERIDAE.

191. BALLONEMA GRACILIPES Verhoeff.

Sitzungsb. Gesellsch. nat. freunde, 1904, p. 261.¹

LOCALITY.—New Guinea: Astrolabe Bay.¹

192. PARASCUTIGERA DAHLI Verhoeff.

Sitzungsb. Gesellsch. nat. freunde, 1904, p. 263.¹

LOCALITY.—Bismarck Archipelago: Ralum.¹

193. PODOTHEREUA INSULARUM Verhoeff.

Sitzungsb. Gesellsch. nat. freunde, 1905, p. 20.¹

LOCALITY.—Bismarck Archipelago.¹

194. ALLOTHEREUA MACULATA (Newport).

Cermatia maculata Newport, Ann. mag. nat. hist., 1844, **13**, p. 96.¹

Cermatia australiana Newport, Trans. Linn. soc. London, 1844, **19**, p. 359.²

Cermatia latreillei Newport, *Ibid.*, p. 357.³

Scutigera maculata Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 23, pl. 2, fig. 36.⁴

Daday, Term. füz., 1891, **14**, p. 192.⁵ Pocock, Willey's Zool. results, 1898, pt. 1, p. 60.⁶ Pocock, Ann. mag. nat. hist., 1901, ser. **7**, **8**, p. 451.⁷

Attems, Fauna südwest. Austr., 1911, **3**, p. 150.⁸ Brölemann, Records Austr. mus., 1912, **9**, p. 37.⁹

LOCALITIES.—New South Wales: Sydney,⁵ Heathcote (W. M. Wheeler), Peak Dawns,⁴ Bourke.⁹ South Queensland:⁷ Victoria: Narre Warren,⁷ Loch.⁷ Walhalla.⁷ W. Australia:² Swan River,¹ Perth,⁶ Subiaco, East Fremantle, Jarrahdale, Harvey, Collie, Bunbury, Upper Blackwood, Bridgetown, Donnybrook.⁸ New Britain.⁶ Australia.³

195. ALLOTHEREUA (?) SIMPLEX (Haase).

Scutigera simplex Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 26, pl. 1, fig. 29.¹

LOCALITY.—New South Wales: Sydney.¹ S. Australia: Adelaide.¹

Of uncertain position. Quite possibly identical with the preceding species.

196. ALLOTHEREUA (?) LESUERI (Lucas).

Scutigera lesuerii Lucas, Anim. artic. Crust. etc., 1840, p. 538.¹ Haase, Abhandl. Mus. Dresden, 1887, **5**, p. 21, pl. 2, fig. 35.²

LOCALITY.—Australia.¹ Queensland: Rockhampton.²

The position of this species must be doubtful until it is restudied.

197. ALLOTHEREUA (?) SMITHI (Newport).

Cermatia smithi Newport, Ann. mag. nat. hist., 1844, **13**, p. 96.¹

LOCALITY.—New Zealand.¹

Also of doubtful generic position.

198. GONETHINA FIJIANA, sp. nov.

TYPE.—M. C. Z. 2,131. Fijis: Mt. Victoria (W. M. Mann).

Dorsum somewhat dusky brown, somewhat paler, more greyish, in mid-dorsal region, especially over the saddles, but a median longitudinal pale

stripe not sharply set off, though on some tergites a brighter line each side of median stripe leaves a darker median area geminate by a longitudinal pale line. Legs with darker markings, especially on femora and prefemora but the definite arrangement of these is difficult to make out. Antennae yellow.

First division of antennae with forty-two articles; second division with near eighty; third division incomplete.

Stoma saddles moderately elevated. Stoma small, on most plates attaining and projecting into the caudal emargination.

First tarsus of first legs consisting of fourteen articles, the second of thirty-two. First tarsus of second legs composed of eleven or twelve articles, the second of thirty. First tarsus of third legs of ten, the second of twenty-nine. None of tarsi present with first division ending in spines but last several pairs of legs missing.

Length, 11 mm.

The type, not fully mature, seems to conform most closely to *Gone-thina*, a genus previously known from the West Indies, though without knowledge of the gonopods of the female this cannot be wholly certain. From *G. grenadensis* differing in coloration and in the coarser, more spinescent hair of the tergites as well as in other details.

DIPLACROPHOR, gen. nov.

A genus of the Scutiggerini resembling *Lassophora* of Madagascar in having the tarsal pegs of the anterior legs alternating regularly in size. Unlike that genus but agreeing with *Scutigera* in lacking any spines in the series of setae of the prefemur of first legs. Agreeing also with *Scutigera* in the form and general number of articles in the divisions of antennae. Differing from the two genera mentioned in having spines of the middle tergites, which are numerous and closely arranged on the margins, each accompanied by a short hair-point as in *Allothereua*, etc.

Genotype.—*D. nitens*, sp. nov.

199. DIPLACROPHOR NITENS, sp. nov.

TYPE.—M. C. Z. 2,132. Solomons: Tulagi (W. M. Mann).

Dorsum with a longitudinal light greenish grey stripe enclosing two black lines between which is a somewhat orange colored median line; the stripe limited on each side by an edging of black. Lateral region on each tergite for the most part reddish but toward each side with two greenish grey spots edged with black, the black color about the two connected. Dorsum of head except laterally greyish green enclosing two longitudinal red stripes edged in part with black. Legs greenish grey with deeper colored annuli of which

those of the prefemur and femur are narrow; each tibia with two deeper and much longer dark annuli occupying the entire joint excepting a narrow light median annulus and a similarly narrow distal one. Tips of tarsi somewhat rufous.

First division of antennae composed of seventy-two articles which, excepting the nodal and basals, are very short; second division missing.

First tarsal division of first legs consisting of thirteen articles, the second of thirty-four. In the second legs the first tarsal division also consists of thirteen segments, the second of thirty-six. In the third legs the first of eleven segments, the second of thirty-two. In the fourth the first of nine segments, the second of thirty-one. The fifth have seven in the first and twenty-eight in the second; the sixth six in the first and twenty-eight in the second; the seventh, six and twenty-seven respectively; the eighth, seven and twenty-eight. All stomata rather short, reaching caudal margin and projecting a little into the caudal excavation. Anal styles of male slender, tapered, the anterior pair a little longer and curved, the posterior straight.

Length (male), 13 mm.

200. SCUTIGERA (?) STRABA (Wood).

Cermatia straba Wood, Journ. Acad. nat. sci. Phil., 1862, ser. 2, 5, p. 11.¹

LOCALITY.—Hawaiian Islands: Oahu.¹

201. SCUTIGERA (?) HISPIDA Haase.

Abhandl. Mus. Dresden, 1887, 5, p. 20, pl. 2, fig. 34.¹

LOCALITIES.—New Guinea.¹ Caroline Islands: Ruk.¹

SYMPHYLA.

SCOLOPENDRELLIDAE.

202. HANSENIELLA NEOZELANICA, sp. nov.

TYPE.—M. C. Z. 2,054. PARATYPES.—M. C. Z. 2,055. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

A species close to *H. plebeia* (Hansen) and *H. nirca* (Scop.). The latter differs from *plebeia* and the present species in having the cerci with but few setae of which the distal arc longer than the depth of the cerci and in having the metatarsus of the last legs bearing only two setae in the anterodorsal row, these being but little shorter than the diameter of the joint. The present species differs from *plebeia*, *e. g.* in

having six setae in the anterodorsal row on the metatarsus of the last legs instead of four and in the character of the claws. The anterior accessory claw is longer proportionately to the principal one and the anterior seta is well developed, equalling the accessory claw in length. Posterior exopods well developed, in length somewhat exceeding the depth of the tarsi. Cerei slender, about 5.5 times longer than the greatest depth and thus much more slender than in the Australian species *H. indecisa* (Attems), the cerei of the latter differing also in the much fewer setae. Setae numerous, the distal ones clearly exceeding the diameter of cercus at their level.

Length, near 6 mm.

203. *HANSENIELLA CALDARIA* (Hansen).

Quart. journ. micros. sci., 1903, 47, p. 36, pl. 2, fig. 3a-3g.

Scutigereella caldaria Archey, Trans. proc. N. Z. inst., 1914, 47, p. 293, fig. 1-6.¹

LOCALITY.—New Zealand: Central Otago: Lake Wakatipu, Ben Lomond.¹

TASMANIELLA, gen. nov.

A genus like *Neoseutigereella* and *Hanseniella* (Journ. Linn. soc. London. Zool., 1914, 32, p. 197) in having no median excavation in the caudal border of the last plate and thus standing apart from *Scutigereella* proper. It is like *Neoseutigereella* in having the setae of the dorsal scuta of a special type; but differs clearly, *c. g.*, in having these much larger, rod-like but narrowing toward base, those in a series across the caudal border much exceeding the others in length; all directed caudad. On the first three plates an especially long tapering seta arising at each caudal corner and extending dorsad and somewhat forward, a corresponding one on fourth tergite smaller. Last tergite with a pit-like depression on the median part of caudal border.

GENOTYPE.—*T. hardyi*, sp. nov.

204. *TASMANIELLA HARDYI*, sp. nov.

TYPE.—M. C. Z. 2,053, Tasmania (G. H. Hardy).

Setae of inner surface of all joints of antennae directed obliquely forward, of ordinary length. Setae of middle whorl of articles of antennae of same length above and below. Setae of head much finer

than those of tergites. First legs smaller than the second but in no sense dwarfed; without exopods. Exopods on posterior legs well developed. Anal legs with anterior claw slender, more than half as long as the other one. Claws of first legs slender with the posterior one about three fourths as long as the anterior one. Cerci with a distinct clear area at distal end not lined or striped, but this part weakly ringed with constricting sulci; setae moderately numerous, the more distal ones approaching in length the depth of the cerci proximally.

Length, about 5 mm.

205. *SCUTIGERELLA INDECISA* Attems.

Fauna süd. Austr., 1911, 3, p. 165.¹

LOCALITIES.—W. Australia: Lion Mill, Guildford, Harvey, Brunswick, Boyanup, Gooseberry Hill.¹

PAUROPODA.

PAUROPODIDAE.

206. *EURYPAUROPUS SPECIOSUS* Harrison.

Proc. Linn. soc. N. S. W., 1914, 39, p. 624, pl. 71, fig. 18-21.¹

LOCALITIES.—New South Wales: Lobster Beach, Broken Bay.¹

207. *PAUROPUS AMICUS* Harrison.

Proc. Linn. soc. N. S. W., 1914, 39, p. 617, pl. 70, fig. 1-11.¹

LOCALITY.—New South Wales: Lindfield, Broken Bay.¹

208. *PAUROPUS AUSTRALIS* Harrison.

Proc. Linn. soc. N. S. W., 1914, 39, p. 620, pl. 71, fig. 12-14.¹

LOCALITY.—Australia: New South Wales: Lindfield, Broken Bay.¹

209. *PAUROPUS NOVAEHOLLANDIAE* Harrison.

Proc. Linn. soc. N. S. W., 1914, 39, p. 622, pl. 71, fig. 15-16.¹

LOCALITY.—New South Wales: Broken Bay.¹

210. *PAUROPUS BURROWESI* Harrison.Proc. Linn. soc. N. S. W., 1914, **39**, p. 623, pl. 71, fig. 17.¹LOCALITY.—New South Wales: Broken Bay.¹**DIPLOPODA.**

PSELAPHOGNATHA.

POLYXENIDAE.

211. *POLYXENUS HAWAIIENSIS* Silvestri.Fauna Hawaiiensis, 1904, **3**, p. 327.¹LOCALITY.—Hawaiian Islands: Oahu: Kaala, 2,000 ft.¹212. *MONOGRAPHIS SCHULTZEI* Attems.Schultze's Forschungsreise Südafrika, 1909, **2**, p. 36, fig. 67-70. Attems,
Fauna südw. Austr., 1911, **3**, p. 167.¹LOCALITY.—W. Australia: Torbay.¹

Otherwise known only from southwestern South Africa, the type-locality.

LOPHOPROCTIDAE.

213. *TRICHOPROCTUS BIROE* Silvestri.Term. füz., 1899, **22**, p. 205, pl. 9, fig. 3, 4.¹LOCALITY.—New Guinea: Tamara Island.¹**ONISCOMORPHA.**

SPHAEROTHERIDAE.

214. *CYLIOSOMA KURANDANUM*, sp. nov.

TYPE.—M. C. Z. 4,696. Queensland: Kuranda (H. L. Clark).

The general color above is dull chestnut, the caudal border and the overlapped anterior region darker. Legs fulvous, the tarsi and the antennae of greenish cast.

Labral margin deeply excavated at the middle, the black tooth projecting into the incision short, obtuse, leaving most of the incision open. Surface of head shining; puncta above sparse, not deep, but toward labral margin becoming numerous. Antennal fossa basin-like, closed in front as well as behind by a ridge. Antennae very short as usual; attenuated distad, the sixth article more slender than the more proximal ones, cylindrical; seventh article short, rounded, with four sensory cones.

Collum with anterior margin concave at the sides and bulging convexly forward at the middle. Caudal margin between angles semicircular. Protruding median region of anterior border set off by a fine transverse sulcus, but the latter short, not extending to the side regions. Surface smooth and shining, weak puncta present in a series across anterior border but absent or obsolete elsewhere.

Second tergite very large; an anterior elevated border set off by a furrow that is narrow and shallow in the middle region but widens and deepens down the sides as usual; surface smooth and shining, not punctate. Surface of the other tergites also smooth and shining and without puncta.

Surface of last plate similar to that of the others. Lower border set off by a very weak oblique depression.

Tarsus of legs with a single spine above and well separated from the claw. Length (female), near 33 mm.; width, 16 mm.

This species may be easily separated from those heretofore described by the structure of the vulva. In this the basal division is large with the two halves equal or very nearly so, not with the outer one much the larger and overlapping the mesal. The distal piece has the usual triangular form; its base obviously narrower than the width of the basal division; its outer side more oblique than the mesal; dark, strongly chitinous.

215. *CYLIOSOMA PACHYGON*, sp. nov.

TYPE.—M. C. Z. 4,697. PARATYPE.—M. C. Z. 4,698. Queensland: Cooktown, 1896 (A. G. Mayer).

Color light chestnut of a somewhat ferruginous cast, the anterior plates darker chestnut, the caudal borders of tergites black. Legs pale ferruginous. Head like the tergites but the collum darker, blackish.

Median emargination of labrum subquadrate, the median tooth narrowly conical, reaching level of mouth of excision. Surface across and above labrum and laterally toward eyes coarsely deeply punctate, but the middle region smooth and shining with the puncta few and small. Antennal furrows deep, pit-like, facing directly laterad toward the wing of the second tergite. Antennae short, tapered distad as usual; the terminal article very short, its sensory cones stout and contiguous or subcontiguous.

The collum of same general form as in *C. kurandanum*. Projecting anterior median border bent more strongly ventrad; set off similarly by a fine transverse sulcus. Coarse puncta in a series across anterior border and a few on middle part of plate, the latter otherwise smooth and shining.

Second tergite with margination as usual, the depression caudad of and above it of usual general form but much shallower than in *C. kurandanum* and scarcely present in the middle region. A vague transverse ridge a little behind caudal limit of anterior third of length; surface smooth and shining, weakly coriariously marked behind the ridge, more roughened in front of it. Other plates smooth and shining.

Anal tergite also smooth and shining. Caudal margin very obtusely slightly angular at middle, the plate depressed above the angle.

Tarsi with spine above claw as usual.

Length (male), near 24 mm.; width, 11.8 mm. Another specimen, an adult male, is only 20 mm. long and 9.2 mm. wide. It is darker than the type.

Clearly differentiated from other known species in the form of the male gonopods. The posterior pair is characterized in having the movable finger exceptionally large and heavy and somewhat clavately widened above the base, much exceeding the immovable finger; the latter of a stout conical form, making a pronounced angle with the axis of the basal part of the joint. The anterior gonopods greatly smaller than the posterior pair; the immovable finger flattened, apically rounded; the movable finger pointed distad, the tip curving adaxially to or over apex of immovable finger.

216. *CYLIOSOMA TARGIONI* Silvestri.

Bull. Soc. ent. Ital., 1897, **29**, p. 226, fig. 1-3.¹

Cyliosoma targioni Silvestri, Boll. Lab. zool. Portici, 1917, **12**, p. 69.

LOCALITY.—Queensland: Cairns.¹

217. *CYLIOSOMA FROGGATTI* Silvestri.

Boll. Lab. zool. Portici, 1917, **12**, p. 70.¹

LOCALITY.—New South Wales: Richmond River.¹

218. *CYLIOSOMA UNICOLOR* Silvestri.

Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 16, pl. 2, fig. 80-82.¹

Cyliosoma queenslandiae Brölemann, Records Austr. mus., 1913, **10**, p. 80.²

LOCALITY.—Queensland: Gayndah.^{1, 2}

219. CYLIOSOMA SENNAE Silvestri.

Bull. Soc. ent. Ital., 1897, **29**, p. 227, fig. 4-6.¹*Cyliosoma penrithensis* Brölemann, Records Austr. mus., 1913, **10**, p. 85.²LOCALITIES.— Queensland: Cairns.¹ New South Wales: Penrith,²
Cambewarra.²

220. CYLIOSOMA SJÖSTEDI Silvestri.

Boll. Lab. zool. Portici, 1917, **12**, p. 73.¹LOCALITY.— Queensland: Cardwell.¹

221. CYLIOSOMA ANGULATUM (Butler).

Sphaerotherium angulatum Butler, Trans. Ent. soc. London, 1878, p. 299.¹LOCALITY.— Queensland: Rockhampton.¹

This is the type of the genus.

222. CYLIOSOMA (?) CONVEXUM (C. Koch).

Sphaerotherium convexum C. Koch, Syst. Myr., 1847, p. 100.¹LOCALITY.— Australia.¹

223. CYLIOSOMA (?) FRATERNUM Butler.

Ann. mag. nat. hist., 1873, ser. 4, **10**, p. 359.¹LOCALITY.— Victoria.¹

224. CYLIOSOMA (EPICYLIOSOMA) ALBERTISI (Silvestri).

Zephronia albertisi Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 635.¹LOCALITY.— Queensland: Somerset.¹

225. PROCYLIOSOMA LEIOSOMA (Hutton).

Sphaerotherium leiosomum Hutton, Ann. nat. hist., 1877, ser. 4, **20**, p. 116.¹LOCALITY.— New Zealand: Dunedin.¹

226. *PROCYLIOSOMA LEAE* Silvestri.Boll. Lab. zool. Portici, 1917, **12**, p. 77.¹LOCALITY.—Tasmania: Hobart.¹227. *PROCYLIOSOMA TASMANICUM* Silvestri.Boll. Lab. zool. Portici, 1917, **12**, p. 78.¹LOCALITY.—Tasmania: Hobart.¹228. *PROCYLIOSOMA TUBERCULATUM* Silvestri.Boll. Lab. zool. Portici, 1917, **12**, p. 80.¹LOCALITIES.—New Zealand: Cape Maria Van Diemen, Marlborough (Croixelles), French Pass. Stephen Island.¹229. *PROCYLIOSOMA DELACYI* (White).*Zephronia delacyi* White, Ann. mag. nat. hist., 1859, ser. 3, **3**, p. 106,¹ pl. 7, fig. 2, 2a.LOCALITY.—New Zealand: Nelson, Waikato.¹230. *PROCYLIOSOMA STRIOLATUM* (Pocock).*Cyliosoma striolatum* Pocock, Ann. mag. nat. hist., 1895, ser. 6, **16**, p. 414.¹*Procyliosoma striolatum* Silvestri, Boll. Lab. zool. Portici, 1917, **12**, p. 83.^{1, 2}LOCALITY.—New Zealand: Greymouth,¹ French Pass.²231. *PROCYLIOSOMA NOVAE ZELANDICA* (Kirk).*Sphaerotherium novae zelandica* Kirk, Trans. proc. N. Z. inst., 1886, **18**, p. 139.¹*Procyliosoma novae zelandica* Silvestri, Boll. Lab. zool. Portici, 1917, **12**, p. 84.²LOCALITIES.—New Zealand: Tinokori Hills, Rimotaka Mts., Wellington, Stratford, New Plymouth.^{1, 2}232. *PROCYLIOSOMA* (*SYNCYLIOSOMA*) *AURIVILLI* Silvestri.Boll. Lab. zool. Portici, 1917, **12**, p. 85.¹LOCALITY.—Queensland: Cape York.¹

233. *CASTANOTHERIUM CELEBENSE* Silvestri.Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 15, fig. xx-xxii.¹LOCALITY.—Celebes: Minahassa.¹234. *CASTANOTHERIUM DISTINCTUM* Carl.Rev. Suisse zool., 1912, 20, p. 106, pl. 6, fig. 37-40.¹LOCALITY.—Celebes: Ussu.¹235. *CASTANOTHERIUM SUSPECTUM* Carl.Rev. Suisse zool., 1912, 20, p. 109.¹LOCALITY.—Celebes: Mapane on Gulf of Tomini.¹236. *CASTANOTHERIUM LAEVE* Carl.Rev. Suisse zool., 1912, 20, p. 110, fig. 1-3.¹LOCALITY.—Celebes: Matinangkette.¹237. *CASTANOTHERIUM CRINICEPS* (Attems).*Zephronia criniceps* Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 482, pl. 21, fig. 8.¹*Castanotherium criniceps* Carl, Rev. Suisse zool., 1912, 20, p. 112, fig. 4.²LOCALITIES.—Celebes: Minahassa,¹ Sopotan,² Tomohon.²238. *CASTANOTHERIUM PILOSUM* Carl.Rev. Suisse zool., 1912, 20, p. 114, fig. 5.¹LOCALITY.—Celebes: Bontorio, Bowanglangi.¹239. *CASTANOTHERIUM ORNATUM* Carl.Rev. Suisse zool., 1912, 20, p. 116, fig. 32-41.¹LOCALITY.—Celebes: Bontorio.¹

240. *CASTANOTHERIUM DECORATUM* Carl.Rev. Suisse zool., 1912, **20**, p. 118, fig. 7.¹LOCALITY.—Celebes: Loka.¹241. *CASTANOTHERIUM BOËTONENSE* Carl.Rev. Suisse zool., 1912, **20**, p. 119, fig. 8.¹LOCALITY.—Boëton Island, near Celebes.¹242. *CASTANOTHERIUM SPARSEPUNCTATUM* Carl.Rev. Suisse zool., 1912, **20**, p. 120, fig. 9.¹LOCALITY.—Celebes: Bolowonglangi.¹243. *CASTANOTHERIUM STELLATUM* Carl.Rev. Suisse zool., 1912, **20**, p. 122, fig. 10.¹LOCALITY.—Celebes: Loka.¹244. *CASTANOTHERIUM* (?) *AMYTHRA* (Attems).*Zephronia amythra* Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 482, pl. 21, fig. 8.¹LOCALITY.—Halmaheira: Soah Konorah.¹245. *ZEPHRONIA* (?) *LARVALIS* Butler.Trans. Ent. soc. London, 1878, p. 301.¹LOCALITY.—Queensland: Torres Strait.¹

GLOMERIDAE.

246. *NESOGLOMERIS SARASINORUM* Carl.Rev. Suisse zool., 1912, **20**, p. 101, pl. 6, fig. 36.¹LOCALITY.—Celebes: Loka.¹

247. NESOGLOMERIS KIRROPEZA (Attems).

Glomeris kirropeza Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 480.¹
Nesoglomeris kirropeza Carl, Rev. Suisse zool., 1912, 20, p. 102.²

LOCALITIES.—Celebes: Minahassa,¹ Lokon, Sopotan.²

248. NESOGLOMERIS EREMITA Carl.

Rev. Suisse zool., 1912, 20, p. 102.¹

LOCALITY.—Celebes: Bowanglangi.¹

249. NESOGLOMERIS ALTICOLA Carl.

Rev. Suisse zool., 1912, 20, p. 103.¹

LOCALITY.—Celebes: Bowanglangi.¹

COLOBOGNATHA

POLYZONIIDAE.

250. ŠIPHONOTUS MEDIUS, sp. nov.

TYPE.—M. C. Z. 4,582. PARATYPE.—M. C. Z. 4,583. Fijis: Lasema (W. M. Mann).

The general color of the ground is fulvous, somewhat more orange anteriorly; the anterior tergites areolated with a network of violet-brown; the antennae also darkened with the same color, the terminal articles more strongly so; head also pigmented in a narrow band down each side and in two lines on the face.

Head narrow; narrowed ventrad with the sides straight throughout; clothed with short hairs both in front and behind and with two long setae between the eyes. Antennae extending a little below lower end of face, clavate, articles short and broad.

Dorsum strongly arched as usual. Venter flat, the tergites of the anterior segments extending a little below its level. Prozonites depressed a little below level of metazonites, though less so than, *e. g.*, in the American *S. purpureus*. First tergite with anterior and lateral margins together forming a semicircular curve; equal in length to the two succeeding tergites together. Penult tergite much longer than the preceding one. Dorsum throughout

with numerous but not dense short straight hairs, some on last segment both above and below longer than the others.

Male gonopods reserved for subsequent description.

Number of segments, forty-eight to fifty.

Length, up to about 8 mm.

A species less pigmented than the Javan *S. formosus* and *elegans* Pocock but more pigmented than *S. dempuranus* and *celebensis* Carl.

251. SIPHONOTUS FIJIENSIS, sp. nov.

TYPE.—M. C. Z. 4,584. PARATYPE.—4,585. Fijis: Nansori (W. M. Mann).

This species is similar in general to *S. intermedius* but is larger, of a darker, ferruginous color. Each somite above with somewhat darker, brownish markings areolated as usual, these darker markings on all somites, not confined to the anterior ones as in *intermedius*, and showing distinctly only under the microscope. Antennae with violet-brown pigmentation over a lighter background. Head marked similarly to *S. intermedius*.

Antennae longer than in the preceding species, with article proportionately more elongate, ordinarily exceeding the head beneath by fully the last two articles; more uniformly cylindrical than in the other species. Head in front with numerous short hairs and two longer ones between eyes.

The hairs of the dorsum much as in *S. intermedius*. The penult tergite proportionately to the adjacent tergites is obviously shorter, the ratio of the last three tergites to each other usually about as 6:9:7. The anal tergite projects less over the valves. Prozonites in general more deeply depressed than in the other species.

The male gonopods are more prominent. The anterior pair in lateral view not narrowed distad, being in fact somewhat expanded above base. Styles not projecting ventrad beyond anterior gonopods, distally extending cephalad.

Number of segments more numerous, from forty-five to sixty-seven in the males.

Length, up to 10 mm.

252. SIPHONOTUS SOLITARIUS, sp. nov.

TYPE.—M. C. Z. 4,586. Fijis: Nansori (W. M. Mann).

Color fulvous, darker markings vague. Violaceous dottings on antennae obscure.

Proportions of antennae and its articles nearly as in *S. fijiensis*.

Prozonites less depressed than in the preceding species, the dorsal line of each tergite being nearly straight. Last segment proportionately more slender.

The gonopods are longer. Anterior pair a little enlarged distad, in side view distally subtruncate. Styles carried well below the anterior gonopods and distally curved with the concavity caudad.

Number of segments (male) fewer, being only forty-three as against a minimum of fifty-four noted in the other species.

Length, near 6 mm.

A smaller and paler species than *S. fijiensis*.

253. SIPHONOTUS SENIOR, sp. nov.

TYPE.—M. C. Z. 4,587. PARATYPES.—M. C. Z. 4,588. Fijis: Nadarivatu (W. M. Mann).

Color in general light ferruginous with the usual violaceous brown darker pigment over the background, this more dense anteriorly; antennae colored with same pigment of which there are also the usual markings on the head.

Antennae short and stout, a little clavate; articles short. Face narrow, evenly attenuated ventrad.

Prozonites in anterior region strongly depressed below the level of the metazonites, less noticeably so in posterior region. Last tergite free above, equalling the valves.

Number of segments in the type, a female, eighty-five.

Length, near 16 mm.¹

An obviously larger, more robust species than those above described. Characterized in having the venter concave, the lower edges of the tergites extending below the level of the sternites along entire length of body, instead of only anteriorly. Hairs of dorsum very short and sparse. Hairs on front of head short, rather dense above, fewer on caudal surface.

254. SIPHONOTUS FRATER, sp. nov.

TYPE.—M. C. Z. 4,589. Fijis: Levuka (W. M. Mann).

A large species like *S. senior*. More uniformly colored than that species. While the depth of the orange or light color varies, the violaceous mottlings or dots are scarcely evident excepting on the antennae. Like *S. senior* the venter is concavely upraised above the level of the lower edges of the tergites but in the posterior region much less so than in the other species.

The head is proportionately longer than in *S. senior*. Whereas in the latter species the distance from the eye to the lower end of the head

is equal to the length of the first tergite, in *frater* the length is greater, exceeding the first tergite in about the ratio 17 : 14.

The anal somite appears shorter and broader, with the annulus less shortened ventrally. Body in general broader in proportion to length.

Number of segments (female type), sixty-three.

Length, near 12 mm.

255. SIPHONOTUS ETHOCEPS, sp. nov.

TYPE.—M. C. Z. 4,590. PARATYPES.—M. C. Z. 4,591. Fijis: Lasema (W. M. Mann).

Distinguishable easily from the two preceding species, which it resembles in the marked concavity or elevation of the venter above the edges of the tergites, in the form of the head. The latter is shorter in proportion to the depth at the upper end and about equals the length of the first tergite. Whereas in *S. frater* the head in profile is straight, or even slightly concave, from near the level of the eyes ventrad and in *senior* is likewise straight or very nearly so, in the present species the line bulges decidedly convexly a little below the level of the antennae. The hairs on the face proportionately longer and more evenly distributed. The coloration is much as in *S. frater*, being light ferruginous with lighter, more yellow markings but without the violaceous mottlings of many species. Hairs of dorsum short, numerous.

Number of segments (female type), seventy-three.

Length, near 11 mm. More slender than *frater*.

256. SIPHONOTUS SOLOMONENSIS, sp. nov.

TYPE.—M. C. Z. 4,960. PARATYPE.—M. C. Z. 4,961. Solomons: Fulakora (W. M. Mann).

General color pale fulvous of a slight greenish tinge with anterior borders of segments darker, a weakly outlined pale spot in dark region on each side below. Antennae dusky over a light background, darker distally.

Head subtriangular in outline, the line of face in profile not indented at level of antennae, weakly convex to lower end; sides nearly straight but slightly incurved a little above tip and above that weakly convex. Eyes more than twice their diameter apart. Antennae unusually stout and heavy, strongly clavately widened to fifth article, the sixth moderately narrowing distad, the seventh very small; exceeding head below by sixth and seventh articles or by these and part of fifth article. Head and antennae subdensely clothed with hairs of moderate length.

Collum of usual general form; more than twice as wide as head; in length about equal to the two succeeding somites.

Tergites extending on each side below level of pleurites, with dorsum strongly arched. Caudal margin of tergites below on each side essentially straight, the caudoventral corner rectangular, slightly narrowly rounded. Caudal edge of pleurite beginning ectally in front of caudal corner of tergite and running caudad of mesad, straight, inner caudal corner a little rounded, mesal margin straight, a little oblique.

Somites not constricted, the prozonites depressed only a little anteriorly. Body proportionately broad and heavy. Hairs moderate in length, not stout, uniform.

Number of segments (female type), fifty-nine.

Length, to near 15 mm.; width, near 1.2 mm.

257. *SIPHONOTUS SOCIUS*, sp. nov.

TYPE.—M. C. Z. 4,962. PARATYPE.—M. C. Z. 4,963. Solomons: Fulakora (W. M. Mann).

General color fulvous of a weak ferruginous cast. Antennae dark, purplish black, especially distally.

Head similar to that of preceding species but in side view more pointed below with curve of face weakly indented at beginning of frontal region below which more strongly convex than in the other species, in upper clypeal region somewhat incurving and then convex above lower end. Differing from that species obviously in the antennae which are smaller, being both shorter and more slender and much more nearly cylindrical with the sixth article more strongly narrowed distad and all articles shorter.

Collum differs in having lower posterior angle more acute, the lateral margin in front of it weakly widely concave.

The transverse suture of segments in general more sharply and deeply impressed. Body as a whole somewhat slender and more strongly narrowed cephalad.

Number of segments from near fifty-six to eighty-two.

Length, to 13 or 14 mm.

This form is very close to the preceding species from which it is separated with some hesitation, though when the two are placed together it may be distinguished by differences in color, robustness, and especially in form of antennae and face. Unfortunately no males are available for comparison.

258. SIPHONOTUS ATTANUS, sp. nov.

TYPE.—M. C. Z. 4,967 (male). PARATYPES.—M. C. Z. 4,968 (males and females). Solomons: Atta (W. M. Mann).

The general color is pale fulvous. Antennae proximally fulvous, the distal articles violaceous, particularly over distal borders.

The profile of the head furnishes an easy means of distinction between the two species, this in the present one being evenly widely concave between level of gentle upper frontal convexity and lower end of head, sometimes angularly indented near middle of this line. Antennae proportionately more slender with articles relatively longer, the sixth article proportionately longer and only slightly narrowed distad; antennae typically not widening beyond middle from where either subcylindrical or a little narrowing distad.

Collum widely depressed across middle; lower margin concave toward caudal end where it curves down making caudolateral angle of plate acute.

Number of segments (male and female) fifty to fifty-two.

Length, near 13 mm.

May be recognized among other species of the Solomons by the form of the head. This somewhat resembles that of *S. socius* but is longer and proportionately more slender, the sides of face less strongly converging ventrad.

A notably more slender species than *S. socius*. Segmental sutures distinct but prozonites not sharply depressed, continuing evenly the dorsal line of metazonite, this line decreasing gradually beneath preceding plate.

259. SIPHONOTUS CURTICEPS, sp. nov.

TYPE.—M. C. Z. 4,964. PARATYPES.—M. C. Z. 4,965, 4,969. Solomons: Fulakora, Atta (W. M. Mann).

A smaller, more slender species than the two preceding. Of a somewhat fulvous grey color with antennae dark as usual.

Strongly characterized by the form and proportions of the head. This is extremely short, with lower part of face much less acute than usual; the width of face at lower level of antennal sockets greater than the length below this level; in front view side of face typically more or less angled between antennae and lower end; in profile face is prominently convex at junction of vertigial and frontal regions below which it is straight. Antennae clavate, thick, joint short, much exceeding head because of shortness of latter.

Number of segments in both type and paratype, fifty-four.

Length, 11.5 mm.

260. SIPHONOTUS FLAVOMARGINATUS Attems.

Fauna südw. Austr., 1911, **3**, p. 201, fig. 99-110.¹

LOCALITY.—W. Australia: Torbay.¹

261. SIPHONOTUS BREVICORNIS Pocock.

Ann. mag. nat. hist., 1903, ser. 7, **12**, p. 531.¹

LOCALITY.—Victoria: Gippsland, Narre Warren.¹

262. SIPHONOTUS BIVITTATUS (Pocock).

Bdellotus bivittatus Pocock, Willey's Zool. results, 1898, pt. 1, p. 73.¹

LOCALITY.—Loyalty Islands: Lifu.¹

263. SIPHONOTUS SETOSUS Silvestri.

Term. füz., 1899, **22**, p. 205.¹

LOCALITY.—New Guinea: Tamara Island.¹

264. RHINOTUS MICHAELSENI (Attems).

Orsilochus michaelсени Attems, Fauna südw. Austr., 1911, **3**, p. 199, fig. 93-98.¹

LOCALITY.—W. Australia: Bridgetown, Yallingup.¹

265. RHINOTUS CELEBENSIS Carl.

Rev. Suisse zool., 1912, **20**, p. 126, pl. 5, fig. 22, pl. 6, fig. 23, 24.¹

LOCALITY.—Celebes: Masarang.¹

266. RHINOTUS TRICHOCEPHALA Carl.

Rev. Suisse zool., 1912, **20**, p. 128.¹

LOCALITY.—Celebes: Manipi.¹

SIPHONETHUS, gen. nov.

Distinguished from *Siphonotus* by having two ocelli on each side instead of one, and by having the head excavated on each side above for the reception of the antennae.

GENOTYPE.—*S. enotatus*, sp. nov.

267. SIPHONETHUS ENOTATUS, sp. nov.

TYPE.—M. C. Z. 4,885. New Zealand: Taumarunni (W. M. Wheeler).

Color uniform fulvoferruginous, or rather more ferruginous at anterior end, with collum, head and antennae somewhat dusky.

Face below level of eyes broadly triangular, sides nearly straight, inferior end acute. Ocelli on mesodorsal side of antennal socket, two in number on each side of which the upper one is the smaller. Head rather deeply excavated on each side for insertion or reception of antennae. Antennae cylindrical, enlarging distad, the lower end of face reaching to near middle of fourth article. Face transversely depressed or furrowed at lower level of antennal notches.

Collum three times as wide as the head. Body hemicylindrical. Each segment transversely furrowed or constricted. Hairs of body moderately long, sparsely and nearly uniformly distributed.

Number of segments, forty-nine.

Width, .93 mm.

268. SIPHONETHUS BELLUS, sp. nov.

TYPE.—M. C. Z. 4,878. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

Distinguished readily by its color-pattern. The general color yellow with a median dorsal longitudinal black line and a broader but still narrow submarginal black stripe on each side, a small yellow dot enclosed in the black of the latter on each segment. Collum, face, and antennae dusky. Legs fulvous. Antennae stout, moderately clavate; reaching to caudal edge of second tergite. Face below antennae triangular, the sides convex, the lower end acutely rounded. Each segment constricted across middle, the furrow with longitudinal striae. Body of type nearly glabrous, the hairs few.

Number of segments, thirty-six.

Width, .92 mm.

SIPHONOPHORIDAE.

269. SIPHONOPHORA ATOPA, sp. nov.

TYPE.—M. C. Z. 4,579. PARATYPES.—M. C. Z. 4,580, Fijis: Nadarivatu (W. M. Mann).

General color above somewhat dusky brown, the head and first segment or two more ferruginous; a series of black dots along each side; antennae dusky over a brownish or fulvous ground.

Rostrum long and curved, more than twice as long as the head. Antennae clavate to middle, then of nearly uniform width to distal end; sixth article cylindrical, the seventh much reduced and often invisible in side view; only slightly exceeding the rostrum.

First tergite with anterior margin conspicuously incurved at middle; a little longer than the two succeeding tergites together; lower anterior margin or corner on each side widely rounded; caudal lower corner subrectangular; lower margin slightly convex, on a level with the others.

Dorsum very densely clothed with short straight hairs, those of the last tergite and those of the head longer than the others. Pleurites with caudal margin convex; inner margin distinctly emarginate near middle.

Legs of first six somites stouter than the others, decreasing gradually from the first pair through this series, the claws of these legs also stouter.

Posterior gonopods with distal article long and slender, distally with funnel-shaped expansion but not at all uncate, the funnel symmetrical; a spine at base as usual, this short. Distal article of anterior gonopods elongate; ectal basal spine long, acute, appressed to the principal lobe.

Number of somites, sixty-five to seventy-five.

Length, up to 20 mm.

270. SIPHONOPHORA ZELANDICA, sp. nov.

TYPE.—M. C. Z. 4,577. New Zealand: Day's Bay, near Wellington, August 17, 1914 (W. M. Wheeler).

Fulvoferruginous above; a series of small yellow spots along each side; a darker stripe across each tergite and a darker middorsal longitudinal line.

Hairs throughout very short, uniform. Rostrum short and slender, much shorter than the head; slightly curved. Antennae missing.

First dorsal plate equal to the two succeeding ones together; lower margin rounded, extending below the level of the others. Pleurites with caudal margin convex, the ectal straight; inner margin only very obscurely incurved or indented near middle.

Number of segments, fifty-four.

271. SIPHONOPHORA NANSORIANA, sp. nov.

TYPE.—M. C. Z. 4,578. PARATYPES.—M. C. Z. 4,581. Fijis: Nansori, Lasema (W. M. Mann).

Dark fulvous, uniform.

Rostrum equal in length to the head, very slightly curved. Antennae strongly clavate; surpassing the rostrum, the latter not fully attaining the middle of the penult article, and thus shorter relatively than in *S. flaviceps*, the Javan species.

First tergite with lower margin straight, on a level with the others; equal in length to the two succeeding tergites taken together. Tergites densely clothed with fine hairs which are short but obviously longer than in *S. zelandica*.

Pleurites with caudal margin straight as is also the ectal, the latter finely serrate; mesal corners rounded, the mesal side weakly emarginate at middle.

Number of segments in type, fifty-eight; in paratypes, forty-three to fifty-five.

Length, 12 mm.

272. SIPHONOPHORA DUX, sp. nov.

TYPE.—M. C. Z. 4,970 (female). Solomons: Bulimatarava (W. M. Mann).

Body in general of light ferruginous cast, rostrum paler and antennae bright yellow.

Rostrum much exceeding the head proper in length and also a little exceeding the antennae. Antennae widening a little to near middle, then nearly of uniform width; sixth article cylindrical, slightly narrowing at distal end, equalling the preceding two and a half articles or more.

Collum longer than the two succeeding somites together; anterior margin nearly straight; anterolateral corners obliquely cut off, the oblique edge a little convex, more angled at each end; lower margin straight.

Body very slender. Dorsum very densely clothed with short hairs which are longer on head and on last segments. Posterior margin of pleurites evenly convex; mesal margin angularly emarginate at middle, the lobe on each side evenly convex.

Number of segments (female), seventy-eight.

Length, 19.5 mm.

273. SIPHONOPHORA OBSCURIOR, sp. nov.

TYPE.—M. C. Z. 4,971. PARATYPES.—M. C. Z. 4,972, 4,974, 4,978. Solomons: Fulakora, Pamua, Wainoni Bay, Auki (W. M. Mann).

General color from light ferruginous to dark ferruginous and deep brown. Sometimes a series of obscure blackish dots along each side of dorsum or these more or less fused. Antennae fulvous.

Head deep, stout. Rostrum exceeding the head in length, extending a little beyond distal end of sixth antennal article. Antennae long, of usual form, sixth article narrowing moderately distad, the seventh small and forming a rounded apex to the sixth.

Collum with anterior margin at middle forming a very obtuse reentrant angle; lower margin convex, often extending a little below level of lower edges of succeeding ones; anterolateral corner widely convex; about equalling the two succeeding somites together in length.

Dorsum densely clothed with hairs as usual, those of body of uniform length but those on front of head longer.

Posterior margin of pleurites evenly convex; mesal margin incurved, the caudal lobe larger than the anterior, the edge of the latter nearly straight, that of the other rounded.

Number of segments, forty-five to fifty-five.

Length, 11 mm.

274. SIPHONOPHORA MEDIA, sp. nov.

TYPE.—M. C. Z. 4,977. Solomons: Wainoni Bay (W. M. Mann).
Fulvous of light ferruginous cast. Antennae yellow.

Aside from coloration and being a smaller and much more slender form, the present species differs in various other characters from *S. obscurior*. The head is somewhat more slender, less abruptly narrowed in front. The rostrum long and curved, much exceeding the head and extending to near distal end of sixth antennal article. Antennae more slender; the sixth article less narrowed distad, nearly strictly cylindrical.

Anteroventral corner of collum less oblique but well rounded. Collum a little longer than the two succeeding tergites together.

Differing in structure of male gonopods, *e. g.* the distal division of the anterior pair notably longer, extending forward to near the anterior border of the sixth somite, with the transparent, blade-like distal end more abruptly bent ventrad, subgeniculate instead of evenly curved.

Number of somites, seventy-five.

Length, about 7.5 mm.

275. SIPHONOPHORA VITTATA Pocock.

Weber's Reise, 1894, 3, p. 337.¹

LOCALITY.—Flores.¹

276. *SIPHONOPHORA LORIAE* Silvestri.

Ann. Mus. civ. Genova, 1894, **34**, p. 636.¹

LOCALITY.—New Guinea: Moroka.¹

277. *SIPHONOPHORA VINOSA* Silvestri.

Ann. Mus. civ. Genova, 1894, **34**, p. 636.¹

LOCALITY.—New Guinea: Moroka.¹

278. *SIPHONOPHORA LONGIROSTRIS* Silvestri.

Ann. Mus. civ. Genova, 1894, **34**, p. 637.¹

LOCALITY.—New Guinea: Moroka.¹

279. *SIPHONOPHORA SCOLOPACINA* Silvestri.

Ann. Mus. civ. Genova, 1894, **34**, p. 637.¹

LOCALITY.—New Guinea: Moroka.¹

STEMMIULOIDEA.

STEMMIULIDAE.

280. *DIOPSIULUS PARVULUS* Silvestri.

Term. füz., 1899, **22**, p. 210, pl. 13, fig. 37-40.¹

LOCALITY.—New Guinea: Erima, Astrolabe Bay.¹

HETEROCHORDEUMIDAE.

281. *SCHEDOTRIGONA HISTRIX* Silvestri.

Boll. Mus. Torino, 1903, **18**, p. 12.¹

LOCALITY.—New Zealand.¹

282. SCHEDOTRIGONA SMITHI Silvestri.

Boll. Mus. Torino, 1903, **18**, p. 13.¹LOCALITY.— New Zealand.¹

283. HUTTONIELLA TRISETOSA (Hutton).

Craspedosoma trisetosum Hutton, Ann. mag. nat. hist., 1877, ser. 4, **20**, p. 116.¹
Huttoniella trisetosa Pocock, Ann. mag. nat. hist., 1903, ser. 7, **12**, p. 519,
 f. a-h.²

LOCALITY.— New Zealand:^{1,2} Maungatua.²

POLYDESMOIDEA.

POLYDESMIDAE.

284a. AUSTRALIOSOMA TRANSVERSE-TAENIATUM (L. Koch).

Strongylosoma transverse-taeniatum L. Koch, Verh. Zool. bot. gesellsch. Wien,
 1867, **17**, p. 246.¹

LOCALITY.— Queensland: Brisbane.¹

285. AUSTRALIOSOMA BIFALCATUM (Silvestri).

Eustrongylosoma bifalcatum Silvestri, Bull. Soc. ent. Ital., 1897, **29**, p. 231,
 fig. 13, 14.¹

LOCALITY.— Queensland: Cairns.¹

286. AUSTRALIOSOMA FROGGATTI Brölemann.

Records Austr. mus., 1913, **10**, p. 95, pl. 14, fig. 8–12.¹LOCALITY.— New South Wales: Shoalhaven Distr., Mt. Sassafras.¹

287. AUSTRALIOSOMA RAINBOWI Brölemann.

Records Austr. mus., 1913, **10**, p. 97, fig. 26, pl. 14, fig. 13–17.¹LOCALITY.— New South Wales: Mt. Sassafras.¹

288. AUSTRALIOSOMA KOSCIUSKOVAGUM Brölemann.

Records Austr. mus., 1913, 10, p. 100, fig. 27, pl. 15, fig. 18-20.¹LOCALITY.—New South Wales: Pretty Point, near Mt. Kosciusko.¹

289. AUSTRALIOSOMA (DICLADOSOMA) ETHEREDGEI Brölemann.

Records Austr. mus., 1913, 10, p. 103, pl. 15, fig. 21, 22.¹LOCALITY.—New South Wales: Pretty Point, near Mt. Kosciusko.¹

290. AUSTRALIOSOMA (CLADETHOSOMA, subgen. nov.) CLARUM, sp. nov.

TYPE.—M. C. Z. 4,SS7. PARATYPES.—M. C. Z. 4,SSS. New South Wales: Hornsby (W. M. Wheeler).

Of the known species apparently nearest *A. rainbowi* Brölemann but easily distinguished by the structure of the gonopods in which the seminal branch is deeply subdivided, the gonopod thus presenting four branches (Cladethosoma, subgen. nov.) instead of three (Australiosoma *sens. str.*) or two (subgen. Dicladosoma). The tibial branch is much broader; at the tip it is curved back uncately and on the mesal edge just proximad of the curved part presents an acute tooth. The seminal branch proper curves in mesad beneath and in contact with the apical portion of the tibial division, and is broadly expanded near the middle of its length; the branch from near its base and on the mesal side is more slender and straight, but little curved at the acute tip. The tarsal branch at its base is ectad of the seminiferous branch in between which and the tibial plate it curves and is there partly concealed. The coxa bears a long, cylindrical, peg-like process on the mesal edge of its distal end.

The general color is chestnut-black with a broad longitudinal median dorsal yellow band bisected by a narrow dark stripe or line and with the keels also yellow, the gemination of the dorsal stripe not always evident in young specimens. Legs and antennae brown to somewhat chestnut. Anal valves blackish.

Keels of second segment each with a single lateral tooth near anterior corner.

Anal scutum much exceeding the valves; the cauda flattened, distal margin incurved or notched.

Length (male), near 35 mm.; width, 4 mm.

291. *ATROPISOMA HORVATHI* Silvestri.Term. füz., 1899, **22**, p. 207, pl. 10, fig. 9-12.¹LOCALITY.—New Guinea: Erima, Astrolabe Bay.¹292. *ATROPISOMA INSULARE* Silvestri.Term. füz., 1899, **22**, p. 207, pl. 10, fig. 13, 14.¹LOCALITY.—New Guinea: Tamara Island.¹293. *ATROPISOMA ELEGANS* Silvestri.Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 12.¹LOCALITY.—Queensland: Gayndah.¹

The validity and position of *Atropisoma*, of which the present species is the type, can only be determined when the characters of the male are known.

294. *EUSTRONGYLOSOMA FASCIATUM* (Silvestri).*Strongylosoma fasciatum* Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 642.¹LOCALITY.—New Guinea: Hughibagu, Moroka.¹The genotype of *Eustrongylosoma*.295. *EUSTRONGYLOSOMA INSULARE* Silvestri.Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 11, pl. 2, fig. 63, 64.¹LOCALITY.—Caroline Islands: Ponape.¹296. *EUSTRONGYLOSOMA TRANSVERSEFASCIATUM* Silvestri.Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 12, fig. 15, 16.¹LOCALITY.—Queensland: Gayndah.¹

AUSTRALODESMUS, gen. nov.

Close to *Australiosoma*, differing only in the male gonopods which present a very different appearance. In the gonopods the telopodite is similarly split at the distal end, but the branches are much shorter,

arising well distad of the middle of the length instead of toward the base; the ventral (posterior) branch expanded, spatulate, the seminiferous branch slender, styliform, arising from the dorsal face of the ventral branch much higher up than the origin of the dorsal or anterior branch which is straight and acute, resembling that in certain species of *Antichiropus*.

GENOTYPE.—*A. divergens*, sp. nov.

297. AUSTRALODESMUS DIVERGENS, sp. nov.

TYPE.—M. C. Z. 4,625. Queensland: Kuranda (W. M. Wheeler).

The general color is dark chocolate-brown, without distinct markings; the pleural region darker than the dorsal. Legs testaceous, the antennae browner.

Clypeal region pilose. Head smooth, not uneven. Vertigial sulcus short. Antennae long and slender, joints in the male in length measuring as follows:—second, third and fourth, .6 mm., fifth, .48 mm., sixth, .4 mm., seventh, .2 mm.

Surface of tergites smooth and shining. Each segment with transverse sulcus deep; a much weaker median longitudinal sulcus. Keels of second segment well below level of adjacent ones, narrow, somewhat concave above. Other keels anteriorly strongly rounded, scarcely raised, the produced caudal corner acute. Caudal of anal tergite extending widely beyond the valves, nearly straight, narrowly truncate.

The legs in general exceptionally long and slender, the last article increasing markedly in length caudally. In the male the last joint and the distal half of penult joint of legs of anterior region densely pilose, the branches thinning out and disappearing caudad, first from the penult and then from the ultimate article. First legs of the male shorter; third joint with a short conical tooth at proximal end.

The median vertical plate from anterior edge of the fifth sternite strongly narrowed distad, distally subtruncate.

The telopodite of male gonopods long, flattened; strongly narrowed just beyond junction with coxa; near the beginning of the distal third of total length a ventral branch of flattened, strongly clavate form arises, the main blade continuing straight forward but narrowing to an acute point; the ventral process is concave dorsally and near the middle of its length gives rise above to the seminiferous branch which is styliform; the style extends first obliquely cephalodorsad, then runs straight forward or distad to meet the edge of the expanded ventral branch proper at which it curves dorsad to end in a short acute point.

Precise length not ascertainable; width, 2 mm.

ZELANODESMUS, gen. nov.

Close to the preceding genus, *Australiosoma*, and *Orthomorpha* but differing in the character of the male gonopods. Each gonopod in the type has the telopodite in the form of a broad blade which gives off on the mesal side near the middle of its length a prong stout at base but long and slenderly acuminate; beyond this the process bifurcates into a flattened seminiferous longer middle branch and a much more slender, styliform, acutely pointed and moderately curved dorsal branch, all the branches remaining well apart from each other.

GENOTYPE.—*Z. rotornanus*, sp. nov.

298. *ZELANODESMUS ROTORNANUS*, sp. nov.

TYPE.—M. C. Z. 4,627. New Zealand: Rotorna (W. M. Wheeler).

Color above chocolate-brown, darker caudad of the suture and on each side just above the narrow yellow keels. Last tergite flavous excepting proximally. Legs fulvous. Antennae brown.

Vertigial sulcus reaching down to or very nearly to upper level of antennal sockets. Clypeal region with scattered coarse puncta or foveolae which are setigerous. Antennae reaching upon the third somite; second, third, and fourth articles measuring each close to .44 mm., the sixth, .52 mm.

Dorsum well arched, not at all tuberculate, shining, at most finely and not densely coriarius. First four tergites without sulci; the others with a deep transverse sulcus excepting the penult and ultimate; keels distinct but very narrow, narrower anteriorly where well rounded; posterior angles subrectangular, not at all, as in the posterior region, produced caudad of posterior margin of the tergite; keels of seventeenth, eighteenth, and nineteenth segments anteriorly scarcely evident, and those of the nineteenth as a whole almost obliterated. None of keels with trace of serration. Last tergite broad, somewhat scoop-shaped, strongly narrowed caudad, the caudal margin weakly incurved or emarginate.

Anal sternite caudally strongly convexly rounded, bulging caudad between the setigerous articles.

First legs in male thickened; third joint with a small tooth on the ventral surface near middle, not otherwise specially modified. First several pairs of legs with last joint bearing a dense series of stiff short hairs beneath. Plate of fifth sternite subquadrate, angles slightly rounded.

Gonopods of male very short, scarcely reaching the bases of the anterior legs of the preceding somite.

Length, near 18 mm.; width, 1.8 mm.

299. *ZELANODESMUS AUSTRALIANUS* sp. nov.

TYPE.—M. C. Z. 4,892. New South Wales: Southerland (W. M. Wheeler).

Gonopods very similar to those of *Z. rotornanus*; the mesal spur of telopodite more transverse in position, making a more obtuse angle with the distal part, and also proportionately longer and more slender; distal branches also bending into a more nearly transverse position.

The color-pattern is characteristic; each metazonite caudad of the transverse furrow is black while in front of this it is black at the sides but fulvous or greyish at the middle but with a triangular median black spot projecting into it from the caudal region; the prozonites are light with a black area each side of dorsum, and below on each side and often a small middorsal dark dot. Legs fulvous.

It is larger than *Z. rotornanus*, the width being 2 mm.

300. *ANTICHIROPUS VARIABILIS* Attems.

Antichiropus variabilis ingens Attems, Fauna südwest. Austr., 1911, 3, p. 171, fig. 27, 28.¹

LOCALITIES.—W. Australia: Wooroloo, Lion Mill, Mundaring Weir, Guildford, East Fremantle, Cannington, Harvey, Collic, Brancaster, Bridgetown, Donnybrook, Boyanup, Gooseberry Hill, Pickering Brook, York.¹

Attems divides the species *variabilis* into two subspecies to each of which he gives a name distinct from the specific name. The first of these subspecific names, *ingens*, is here suppressed as a synonym of *variabilis sens. str.*

300a. *ANTICHIROPUS VARIABILIS NANUS* Attems.

Fauna südwest. Austr., 1911, 3, p. 172, fig. 29, 30.¹

LOCALITIES.—W. Australia: Boyanup, Yallingup.¹

301. *ANTICHIROPUS MINIMUS* Attems.

Fauna südwest. Austr., 1911, 3, p. 173, fig. 31.¹

LOCALITIES.—W. Australia: Mundaring Weir, Jarrahdale.¹

302. *ANTICHIROPUS WHISTLERI* Attems.Fauna südw. Austr., 1911, **3**, p. 174, fig. 32, 33.¹LOCALITIES.—W. Australia: Buckland Hill near North Fremantle, Rottneest, Brancaster in the upper Blackwood district.¹303. *ANTICHIROPUS MONACANTHUS* Attems.Fauna südw. Austr., 1911, **3**, p. 176, fig. 34–36.¹LOCALITIES.—W. Australia: Dirk Hartog, Brown Sta., Tamala in Edel Land, Wooroloo.¹304. *ANTICHIROPUS FOSSULIFRONS* Attems.Fauna südw. Austr., 1911, **3**, p. 176, fig. 37, 38.¹LOCALITIES.—W. Australia: Yalgoo, Eradu.¹305. *ANTICHIROPUS SULCATUS* Attems.Fauna südw. Austr., 1911, **3**, p. 177, fig. 39–41.¹LOCALITY.—W. Australia: Guildford.¹*NOTODESMUS*, gen. nov.

Differing from *Antichiropus* and closely related genera in the character of the male gonopods. Readily distinguished from the same in wholly lacking spines or processes at the end of the long tibial or proximal division of the telopodite; the distal division of the telopodite consisting of a straight proximal subdivision at the dorsodistal edge of which there is (at least in the genotype) a thin short spine, and a strongly curled, thin distal blade which in the genotype crosses or interlocks with that of the other gonopod. The first legs as in related genera stout, with the third joint provided with a tooth at proximal end on ventral surface but not so strongly modified as in *Antichiropus*. Fifth sternite with anterior edge bearing the usual plate-like elevation but this low and thick in the genotype. Antennae of moderate length, distally clavate; second, third, and fourth articles subequal and but little longer than the fifth and sixth. Keels but slightly raised above

level of pleural surface, set off from above by a deep sulcus in the genotype; second keels below level of adjacent ones; keels from fifth caudad much thicker or more swollen than the anterior ones.

GENOTYPE.—*N. scotius*, sp. nov.

306. NOTODESMUS SCOTIUS, sp. nov.

TYPE.—M. C. Z. 4,646. PARATYPES.—M. C. Z. 4,647. Tasmania: Wedge Bay, February, 1915 (G. H. Hardy).

Dorsum deep chocolate to black, lower pleural and the ventral regions paler, ferruginous to testaceous. Antennae like dorsum, legs blackish or dark brown, proximally paler.

Vertigial sulcus deep, extending ventrad to a little above the level of the antennal sockets, the sulcus at bottom of a wider furrow or depression. Face with numerous long straight setae, these above level of antennae fewer, along sides of median sulcus.

First tergite with each lateral end rounded, the anterior corner more widely so than the posterior; above each lateral margin with a deep longitudinal furrow, margined below and a little ways up anterior side. Other tergites smooth and shining, the prozonites very finely coriarius, the metazonites smooth excepting in some certain obscure longitudinal rugae toward each side and more particularly caudad of the transverse sulcus. Metazonites from the fourth to the eighteenth inclusive with a deep transverse sulcus which ends on each side well above the level of the keels. Longitudinal sulci limiting keels above deep and sharply defined.

Anal scutum narrowed caudad in the usual manner, the cauda rather wide and flattened dorsoventrally, not at all subcylindrical, the caudal margin truncate or mesally slightly notched. Dorsal surface, especially caudad of middle, obscurely transversely rugose; with two transverse series of setae additional to those projecting from caudal end, one near middle and one a little in front of caudal border. Anal valves sharply defined mesally. Anal scale caudadly convexly rounded, convexly elevated between the two setigerous tubercles.

Length (female), to near 16 mm.; width, 2.5 mm. The males more slender, the width of a specimen 15 mm. long being near 1.8 mm.

307. AKAMPTOGONUS BEAUFORTI Attens.

Bijdr. dierk., 1915, 20, p. 5.¹

LOCALITY.—Waigau: Bajon.¹

308. ORTHOMORPHA LAMPRA, sp. nov.

TYPE.—M. C. Z. 4,628. Fiji: Levuka (W. M. Mann).

Metazonites above deep chocolate, the keels not paler, prozonites and sides lighter; the venter and legs fulvous; antennae distally dark brown, paler proximally.

Dorsal surface not tuberculate or granular, shining, under lens appearing finely and not strongly coriarius.

Vertigial sulcus of head deep, reaching nearly to level of upper margin of antennal sockets. Frontal and clypeal regions with numerous long stiff setae. Face in profile angularly bent forward at lower level of antennal sockets.

This species stands apart with *O. bisulcata* Pocock from Burma in having the tergites mostly crossed by sharply impressed median longitudinal sulci in addition to the transverse sulci; but in the present species this longitudinal sulcus is distinct even on the first tergite and all others to and including the nineteenth whereas it exists only on segments from the third to the eighteenth in *bisulcata*. The keels are very narrow but thick dorsoventrally, with pores toward lower margin of edge; posterior angles not produced in any. Last tergite of usual form, notched caudally; crossed with a basal, submedian, and subapical transverse series of setae.

Other segments with a series of setae across anterior border of metatergite.

In the male gonopods both the coxae and telopodites very long. The latter clavately widened distad from a narrow base; each on the mesal side distad of middle with a branch in the form of a broad thin plate with distal end concavely excavated and dorsoventral face concave. The principal branch is also thin and flattened and is geniculate, bending abruptly mesad near its middle, its ventral surface concave. Opposite the mesal branch the seminiferous branch arises, this bending obliquely across the main branch and extending distomesad in contact with the mesal and ventral surface of the latter; just above the origin of the seminiferous branch a curved, slender and acute spur.

Length, near 20 mm.; width, 1.8 mm.

309. ORTHOMORPHA COARCTATA (Saussure).

Polydesmus coarctatus Saussure, Mém. Mex. Myr., 1860, p. 39, fig. 18.
Strongylosoma coarctatum Pocock, Weber's Reise, 1894, 3, p. 366.¹

Orthomorpha coarctata Pocock, Ann. mag. nat. hist., 1898, ser. 7, 1, p. 327.²
 Attems, Syst. Polydes., 1897, pt. 1, p. 335, pl. 4, fig. 85.³ Carl, Abhandl.
 Senckenb. gesellsch., 1912, 34, p. 270.⁴ Attems, Bijdr. dierk., 1915, 20,
 p. 6.⁵

LOCALITIES.—Celebes: Makassar.¹ Saleyer.¹ Flores: Bari, Reo.¹
 Ternate. Halmaheira. Gani.³ Saonek.⁵ Kei Islands: Great Kei,
 Elat, Little Kei, Tual. Aru Islands: Terangan, Ngaiboor,⁴ Barkai,
 Gomo Gomo, Longar.⁴ Ellice Islands: Rotuma.^{2, 5} Hervey Islands:
 Rarotonga (W. M. Wheeler). Fijis: Suva (A. G. Mayer), Wainunu,
 Nasoqo, Nansori, Somo Somo, Munia, Labasa, Levuka, Waiyanitu,
 Lasema (W. M. Mann). Society Islands: Tahiti. Samoa: Apia
 (V. L. Kellogg). Hawaiian Islands: Oahu: Honolulu (ALBATROSS
 1902).

310. ORTHOMORPHA WEBERI (Pocock).

Strongylosoma weberi Pocock, Weber's Reise, 1894, 3, p. 367, pl. 21, fig. 4, 4a.¹

LOCALITY.—Celebes: Makassar.¹

311. ORTHOMORPHA ASPERA (L. Koch).

Strongylosoma aspera L. Koch, Verh. Zool. bot. gesellsch. Wien, 1867, 17,
 p. 245.¹

LOCALITY.—Queensland: Brisbane.¹

312. ORTHOMORPHA DUBIA (L. Koch).

Strongylosoma dubium L. Koch, Verh. Zool. bot. gesellsch. Wien, 1867, 17, p.
 247.¹

LOCALITY.—Queensland: Brisbane.¹

313. ORTHOMORPHA GRACILIS (C. Koch).

Fontaria gracilis C. Koch, Syst. Myr., 1847, p. 142.

Paradesmus gracilis Daday, Term. füz., 1891, 14, p. 179.¹ Latzel, Bull. Soc.
 zool. France, 1892, 17, p. 186.²

Strongylosoma gracile Pocock, Ann. mag. nat. hist., 1893, ser. 6, 11, p. 130.³

Orthomorpha gracilis Attems, Syst. Polydes., 1897, pt. 1, p. 337, pl. 4, fig. 89,
 90.⁴

LOCALITIES — New Zealand: Rotorna (W. M. Wheeler). Hervey Islands: Rarotonga (W. M. Wheeler). Fijis: Viti.⁴ Society Islands: Tahiti² (ALBATROSS 1899; W. M. Wheeler, 1914). Samoa.¹ Hawaiian Islands: Hawaii: Hilo; Oahu: Honolulu.³

314. ORTHOMORPHA VINOSA (Pocock).

Strongylosoma vinosa Pocock, Weber's Reise, 1894, **3**, p. 361, pl. 22, fig. 3.¹

LOCALITY.— Flores: Bari.¹

315. ORTHOMORPHA IMPRESSA (Le Guillou).

Polydesmus impressum LeGuillou, Bull. Soc. philom. Paris, 1841, p. 85.¹
Gervais Insect. Apt., 1847, **4**, p. 103.¹

LOCALITY.— New Guinea.¹

316. ORTHOMORPHA LORIAE (Silvestri).

Strongylosoma loriae Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 645.¹

LOCALITY.— New Guinea: Hughibagu, Moroka.¹

317. ORTHOMORPHA GERVAISI (Lucas).

Polydesmus gervaisi Lucas, Anim. artic. Crust. etc., 1840, p. 525; Gervais, Insect. Apt., 1847, **4**, p. 118.

Strongylosoma trilineata Newport, Ann. mag. nat. hist., 1844, **13**, p. 266.

Strongylosoma petersii L. Koch, Verh. Zool. bot. gesellsch. Wien, 1865, **15**, p. 882.¹

Strongylosoma gervaisii Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 131.²

LOCALITIES.— New South Wales: Sydney, Paramatta;² Queensland: Cape York, Wollongong.¹

318. TRICLADOSOMA NOVARRAE (Humbert and Saussure).

Polydesmus (Strongylosoma) novarrae Humbert & Saussure, Verh. Zool. bot. gesellsch. Wien, 1869, **19**, p. 689.¹

Strongylosoma novarrae Attems, Syst. Polydes., 1897, pt. 1, p. 305, pl. 3, fig. 58.

LOCALITY.— New Zealand: Auckland.¹

319. TRICLADOSOMA TRIAINA (Attems).

Orthomorpha triaina Attems, Fauna süd w. Austr., 1911, **3**, p. 178, fig. 42.¹

LOCALITY.—W. Australia: Albany.¹

320. SERANGODES STRONGYLOSOMOIDES Attems.

Denks. Akad. Wien, math.-nat. kl., 1899, **67**, p. 273.¹

LOCALITY.—New Zealand.¹

321. CYLINDRODESMUS VILLOSUS Pocock.

Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 329.¹

LOCALITY.—Ellice Islands: Rotuma.¹

322. CYLINDRODESMUS STRUBELLI (Verhoeff).

Haplosoma strubelli Verhoeff, Zool. anz., 1894, **17**, p. 8.¹

LOCALITY.—Amboina.¹

323. STRONGYLOSOMA NIGRUM, sp. nov.

TYPE.—M. C. Z. 4,659. New South Wales: Southerland (W. M. Wheeler).

Color above shining black, the sides duller; keels with lateral edges in whole or in part tending toward dark ferruginous. Venter ferruginous brown. Legs and antennae black or nearly so.

Sulcus of vertex deep, extending down to level of the antennal sockets. On each side above antennae somewhat roughened by weak subvertical rugae. Antennae very slender, scarcely clavate distad; length of second, third, fourth, fifth, and sixth joints respectively .52 mm., .48 mm., .44 mm., .4 mm., and .44 mm.

First tergite obviously narrower than the second. Lateral ends well rounded. Strongly margined laterally and for a short distance up the front. A short longitudinal sulcus a little way above the lateral margining sulcus. Sulci between prozonites and metazonites strongly beaded. Second keel below level of adjacent ones, distinct and sharply limited; anterior angle rounded, the posterior one a little produced caudad. Tergites from fifth to eighteenth inclusive with a deep transverse sulcus which on most extends

nearly to the keel on each side. Surface more or less punctate and moderately coriariouly roughened, more especially behind the sulci. Posterior angles of keels in posterior region extended caudad distinctly beyond caudal margin of tergites. In lateral view the keels narrowing or decreasing in thickness triangularly caudad, but the posterior angle narrowly rounded, much less acute than in *S. robustior* than which it is a very much smaller species.

The cauda of the anal scutum flat, concave beneath, extending a smaller distance than usual beyond the valves.

Length, 21.5 mm.; width, close to 3 mm.

This species, as in the case of *robustior*, is, in the absence of knowledge of the males, referred with some doubt to *Strongylosoma*.

324. STRONGYLOSOMA ROBUSTIOR, sp. nov.

TYPE.—M. C. Z. 4,656. PARATYPE.—M. C. Z. 4,657. New South Wales: Blue Mts., Katoomba (W. M. Wheeler).

The color is darker, being above chocolate-brown or in part (anteriorly and posteriorly) black, the sides and venter paler, fulvous. Anal scutum with caudal end ferruginous or fulvous. Legs distally light brown and proximally fulvous, instead of red as in the other species.

Lateral ends of collum rounded. Strongly margined laterally. Above margining sulcus a little coriariouly roughened.

Surface of the other tergites nearly smooth, a few weak, irregular longitudinal sulci and some finer ones giving a vague coriariouly appearance. No longitudinal median sulci but a deep transverse sulcus on each tergite from the fifth to the eighteenth, the sulcus extending nearly to the keel on each side. Keels of second segment well below the others as usual, the anterior corner of each not produced, subrectangular, the posterior corner rounded. Other keels low but distinct throughout length, set off above by a sharply defined longitudinal sulcus. Keels of porigerous segments much thicker than the others as usual, but narrowing to an angle behind, the ventral margin running obliquely dorsocaudad to meet the upper one. Pore caudad of middle. Posterior angles not produced caudad of caudal margin of tergites.

Pleural keels are present on the second, third, and fourth segments, whereas in *S. rubripes* they occur only on the second and third; the keel of the second segment much lower down than the other two. Above level of each leg of fourth segment a low, stout, distally truncate process. On succeeding segments a slender process above base of each first leg and a stouter lower one above base of the second leg.

Anal scutum with cauda long, wide, concave beneath, caudal margin mesally excised. Valves strongly margined; each with two long setae. Anal scale caudally convexly rounded; with the usual two long setae.

Length (female), near 42 mm.; width, 4.6 mm.

A species evidently close to *S. rubripes* Koch, which was based on a female from Brisbane.

325. *STRONGYLOSOMA RUBRIMARGINATUM*, sp. nov.

TYPE.—M. C. Z. 4,896. PARATYPES.—M. C. Z. 4,897. New South Wales; Wentworth Falls (W. M. Wheeler).

Color solid shining black excepting the keels and cauda which are bright red. Antennae and legs brown.

Head with a deep sulcus across vertex to level of antennae; crossed by short transverse striae.

Collum rounded below and margined as usual. Surface with irregularly distributed short impressed lines running in various directions.

Tergites without median longitudinal sulcus. Each from the fifth on with a transverse sulcus across metazonite, this at first short but on most extending from keel to keel. Keel of second segment below others as usual. Pleural keels present on second, third, and fourth segments, that of the second longer and much lower down than the other two. Second to fifth segments particularly with sides below keels densely granularly roughened, the corresponding surface on other segments becoming smoother. The usual processes above legs.

Cauda long; distal margin slightly incurved. Anal valves strongly margined, with the usual two long setae.

Width, 3.3 mm.

Referred with some doubt to *Strongylosoma* pending the discovery of the male.

326. *STRONGYLOSOMA QUAESITUM*, sp. nov.

TYPE.—M. C. Z. 4,889. PARATYPE.—M. C. Z. 4,890. New South Wales: Southerland (W. M. Wheeler).

Metazonites mahogany above, paler down the sides; prozonites fulvous with a large dark spot above on each side of the middorsal region and one on each side. Antennae light brown over a paler background excepting sixth or sixth and seventh articles whose color is darker, chestnut or black. Anal scutum paler over cauda; valves dusky over a light background. Legs fulvous brown.

Collum narrowly rounded below; anterolateral portion of margin long and straight across the base of gnathochilarium; narrowly margined below and over the oblique part of edge. Keel of second segment narrow and thin, carried far down as usual. Other segments wholly lacking any trace of keels,

the body being thus nearly cylindrical. Segments deeply constricted, the encircling groove pearly or crossed by numerous short, impressed lines. Cauda distally rather deeply notched.

Length, near 22 mm.; width, 2.25 mm.

Referred provisionally to this genus in absence of knowledge of the male.

327. *STRONGYLOSOMA SIGNATUM* Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 483, pl. 21, fig. 10.¹

Strongylosoma signatum Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 273.²

LOCALITIES.—Halmaheira: Soah Konorah.^{1, 2} Kei Islands: Great Kei.²

328. *STRONGYLOSOMA KUKENTHALI* Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 484, pl. 21, fig. 9.¹

LOCALITY.—Celebes: Minahassa.¹

329. *STRONGYLOSOMA HETAIRON* Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 485.¹

LOCALITY.—Celebes: Minahassa.¹

330. *STRONGYLOSOMA RUBRIPES* (L. Koch).

Polydesmus (Strongylosoma) rubripes L. Koch, Verh. Zool. bot. gesellsch. Wien., 1867, **17**, p. 247.¹

LOCALITY.—Queensland: Brisbane.¹

331. *STRONGYLOSOMA SEMONI* Attems.

Semon's Forschungsreise, 1898, **5**, p. 510.¹

LOCALITY.—Queensland: Burnett District.¹

332. *STRONGYLOSOMA INNOTATUM* Karsch.

Polydesmus (Strongylosoma) innotatum Karsch, Archiv nat., 1881, **47**, p. 42.¹

LOCALITY.—New South Wales: Sydney.¹

333. *STRONGYLOSOMA ELEGANS* (Silvestri).

Atropisoma elegans Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 12.¹

LOCALITY.— Queensland: Gayndah.¹

This species is the type of *Atropisoma* Silvestri. Without knowledge of the male the significance of the genus is difficult to determine.

334. *STRONGYLOSOMA LUXURIOSOMUM* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 643.¹

LOCALITY.— Dutch New Guinea: Sorong.¹

335. *STRONGYLOSOMA MACULATUM* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 642.¹

LOCALITY.— New Guinea: Moroka.¹

336. *STRONGYLOSOMA ALBIPES* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 644.¹

LOCALITY.— New Guinea: Moroka.¹

337. *STRONGYLOSOMA OENOLOGUM* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 644.¹

LOCALITY.— New Guinea: Moroka.¹

338. *STRONGYLOSOMA SANGUINEUM* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 645.¹

LOCALITY.— New Guinea: Moroka.¹

339. *STRONGYLOSOMA VERSICOLOR* Silvestri.

Ann. Mus. civ. Genova, 1895, 34, p. 645.¹

LOCALITY.— New Guinea: Gerekanumu, Astrolabe Mts.¹

340. STRONGYLOSOMA LONGESIGNATUM (Silvestri).

Eustrongylosoma longesignatum Silvestri, Ann. Mus. civ. Genova, 1898, 38, p. 442.¹

LOCALITY.—British New Guinea: Buccajon.¹

341. STRONGYLOSOMA ORTHOGONA (Silvestri).

Eustrongylosoma orthogona Silvestri, Ann. Mus. civ. Genova, 1898, 38, p. 442.¹

LOCALITY.—New Guinea: Ramoi.¹

342. STRONGYLOSOMA ENSIGER Karsch.

Polydesmus (Strongylosoma) ensiger Karsch, Archiv nat., 1881, 47, p. 42.¹

LOCALITY.—New Zealand.¹

343. STRONGYLOSOMA NIGROVIRGATUM Carl.

Rev. Suisse zool., 1902, 10, p. 567, pl. 10, fig. 1, 2.¹

LOCALITY.—Victoria: Melbourne.¹

PHLYCTODESMUS, gen. nov.

Resembling *Strongylosoma* but characterized by having head, all metazonites (excepting sternites), and the anal tergite and valves densely granular as in *Microporus*, the tubercles setigerous in part. Keels wholly lacking, the tergites at most somewhat angularly thickened at level of pores. The pores not elevated. The keel-like thickening of second tergite extended forward at lower end against or over inferior end of first tergite and the border of cardo of mandibles. Tergites without transverse sulci. Body narrowest in region of third and fourth somites. Composed of head and twenty segments. Pores on segments five, seven, nine, ten, twelve, thirteen, and fifteen to nineteen. Prozonites sharply set off from the metazonites. Antennae short, clavate, the sixth article much the longest. Telopodite with the femoral region constricted proximally, strongly clavately widened distad, convex anteroectally, concave on the opposite face,

the free edges more or less produced, distal region strongly curved, wide and thin, the free edges more or less uneven or dentate.

GENOTYPE.—*P. myrmecophor*, sp. nov.

344. PHLYCTODESMUS MYRMECOPHOR, sp. nov.

TYPE.—M. C. Z. 4,634. PARATYPES.—M. C. Z. 4,635, 4,638. Fijis: Nadarivatu (W. M. Mann).

General color chestnut-brown, the first tergite contrasting in being abruptly paler, fulvous in whole or at least its anterior part. Legs fulvous. Antennae brown.

The second tergite on each side extends forward as a rounded lobe a little overlapping the lower end of the first tergite and the caudal border of the cardo of mandibles. The metazonites elevated much above prozonites; between legs and lateral thickenings at level of pores densely finely granular with granules of uniform size and non-setigerous; the dorsal region also densely granular but in addition to the small granules with mostly seven transverse rows of larger setigerous tubercles, the setae moderately long and distally acute. Surface beneath pores not at all elevated and the lateral thickening not projecting at all over pleural region, the surface evenly continuous. Anal tergite triangular; the cauda subcylindrical, projecting widely beyond the anal valves, obscurely deurved, the tip narrowly truncate; dorsally densely granular like the other tergites, with transverse series of larger setigerous granules or tubercles. Valves densely granular, the margins strongly elevated but not sharply limited by furrows; each with two larger setigerous tubercles.

In the male gonopods the caudal ectal edge of the femoral division projecting strongly caudad in a triangular plate or process. The distal portion running mesad, and widely overlapping the other gonopod with which it fits closely together, a stout conical process at base in front of each gonopod. The telopodites at base where they are in contact between the coxae with mesal edges strongly dentate, the teeth interlocking, these teeth visible only when the gonopods are somewhat separated from each other.

Length (female), to near 14 mm.; width, 1.4 mm. The males smaller than the females.

FIJIODESMUS, gen. nov.

In general appearance closely resembling *Phlyctodesmus* but the granulation much finer, obscure or absent on the anal valves. A readily noticed difference is that the pores are distinctly though not strongly elevated, the rim of the elevation fringed with the short hairs. The gonopods very different in appearance, the coxae very large, the

telopodites proportionately small, curving forward from between the coxae as slender, unsegmented and unbranched blades subparallel to each other throughout.

GENOTYPE.—*M. suprenans*, sp. nov.

345. FIJIODESMUS SUPRENANS, sp. nov.

TYPE.—M. C. Z. 4,636. PARATYPES.—M. C. Z. 4,637, 4,639, 4,642. Fijis: Nadarivatu, Waigonibu, Vanua Ava, Lomati, Lasema (W. M. Mann).

General color of males as in *Phlyctodesmus myrmecophor*, the somites above and laterally chestnut excepting the first tergite which is flavous. Legs flavous. Antennae brown. The females are a duller, less reddish brown.

Granulation of head much reduced, the granules exceedingly fine or obscure so that the surface appears smooth, densely clothed with short stiff hairs. The vertigial sulcus extending across vertex but not at all down the front.

Surface of first tergite like that of head but hairs much shorter and finer, appearing like bloom on fruit. Other tergites similarly with granules very fine and hairs of same character but in addition with transverse series of larger though still small granules each of which bears a stouter and longer distally finely pointed seta. Lateral swellings of metazonites more pronounced, bulging more over the pleural region. Second tergite extending forward on each side as in *Phlyctodesmus*. Pores opening through short cylindrical elevations like the mouth of a gunbarrel, the rim appearing finely fringed. Anal tergite in profile with dorsal line strongly convex, the cauda much exceeding the valves, decurved.

Length (female), up to 13 mm., the males smaller.

SOLOMONOSOMA, gen. nov.

Composed of head and twenty somites. Having general form of *Orthomorpha*. Keels reduced but distinct and very thick, with the second one much below level of the others. Antennae long and slender. Sternites without processes excepting the plate on the fifth in the male. Pleural keels on first to fourth segments, those of first and second subvertical and extending up to tergal keels. The usual processes above bases of legs. Sulcus across tergites present but this not sharply impressed and often obscure. Anal tergite broad, shovel-formed, caudally subtruncate. First legs of male strongly thickened; third joint at base below with a large process as in *Antichiropus* and *Somethus*. Hairs on ventral surface of tarsus in male more numer-

ous than on others. Gonopods of male unsegmented beyond second joint. Telopodite long, widening distad, thin and plate-like, at end with two short processes of which the ectal is typically broad and distally blunt, the mesal narrow and distally acute.

GENOTYPE.—*S. manni*, sp. nov.

346. SOLOMONOSOMA MANNI, sp. nov.

TYPE.—M. C. Z. 4,992. PARATYPES.—M. C. Z. 4,993, 5,008. Solomons: Auki (W. M. Mann).

Typically black above with posterior portion of keels yellow to reddish or reddish yellow, sometimes the lighter yellow obscure. Antennae black to deep brown. Legs fulvous with middle joints darker and of vaguely weakly reddish cast. Head paler across labral border and just above antennal socket on each side.

Vertigial sulcus sharply impressed to a little above level of upper margins of antennal sockets. Antennae slender, joints long except first and last; third joint a little longest, the fourth, fifth, and sixth subequal.

Tergites from third caudad with a median longitudinal sulcus, from fourth on with a transverse furrow which covers only middle region of plate and is often very shallow and sometimes vague. Behind the transverse sulcus commonly a number of longitudinal sulci on each side paralleling the median one. Anal tergite broad, distally mesally indented, the ventral surface concave, caudal region or cauda depressed below level of anterior region.

Legs very long.

In gonopods of male the telopodite strongly clavately widening distad, the mesal edge of the main plate toward distal end broadly extended mesad and bent up dorsad, the mesal part thin and translucent, the distomesad corner subrectangular. The mesal distal process weakly doubly curving, abruptly more slender and curved at tip. The ectal process broadly expanding distad, distal edge a little convex, extending at mesodistal corner into a spine-like lobe which bends somewhat ventrad and has commonly a minute tooth on its caudal edge near middle; the outer lobe broader and more rounded.

Length (male type), 29 mm.; width, 3 mm.

347. SOLOMONOSOMA DIDYMUS, sp. nov.

TYPE.—M. C. Z. 5,003. PARATYPES.—M. C. Z. 5,004. Solomons: Wainoni Bay (W. M. Mann).

In coloration very like *S. nigrum*, having a similarly black or brownish black coloration of dorsum and sides, with a large dull reddish middorsal spot on each tergite; but the posterior part of each keel is

also of the same obscure reddish color. Antennae and legs black. Articles of antennae shorter, as in *S. nigrum*, than in *manni* and *maius*. Furrows of tergites obscure. Keels as usual. Anal tergite broad, corners a little rounded, posterior margin a little concave. Most clearly differentiated by the structure of the male gonopods. The outer distal process is shorter than in *S. nigrum*, less ribbon-shaped, with the cuneate distal expansion much larger, bent so as to be concave on the ventral side. Most distal process abruptly narrowed and curved over distal portion as in *manni*. On ectal edge of tibial division near middle of its length a triangular expansion with lower edge long and oblique and upper one short. Such an ectal angulation is also indicated in *nigrum* but it is much smaller. A prominent mesal expansion as usual.

Length (male type), 30 mm.

348. SOLOMONOSOMA MAIUS, sp. nov.

TYPE.—M. C. Z. 4,999. Solomons: Malaita, Ruma. PARATYPES.—M. C. Z. 5,000, 5,002. Solomons: Malaita, Niauva (W. M. Mann).

A larger species than the others. Resembling the genotype in its long yellow legs and light, yellow keels, but the dorsum is paler brown. Antennae and head a deeper brown.

Keels thick and smooth as usual and set off by distinct furrows. Tergites with longitudinal as well as transverse sulci distinct. Anal tergite broad, caudal edge truncate or weakly widely incurved, more as in the genotype than in *S. nigrum*.

Mesal edge of distal end of tarsal division of telopodite produced dorsomesad in a large, thin, subquadrate lobe. Outer process differing conspicuously from that of the other species in widening to an angle on its dorsal edge and then curving about mesad and again a little proximad in a wide hook which narrows distad.

Length (male type), 40 mm.

349. SOLOMONOSOMA NIGRUM sp. nov.

TYPE.—M. C. Z. 4,998. PARATYPES.—M. C. Z. 4,998. Solomons: Auki (W. M. Mann).

Black above and laterally, differing from *S. manni* in not having the keels light colored; a large middorsal dull reddish spot on each somite. Venter brown. Antennae and legs black.

In the antennae the second and third articles are longer than the following ones and the fifth and sixth are longer than the fourth. Vertigial sulcus as in the other species.

Transverse sulcus of tergites distinct over median part of plates though not sharply impressed. Longitudinal median sulcus weak. Keels thick, with edges wholly smooth; set off by distinct furrows. Anal tergite more narrowed caudad than in the other species, caudally truncate or only slightly concave.

Length (females), to 25 mm. Males smaller.

Easily distinguished by the structure of the male gonopods. In the telopodite the broad mesal edge more strongly bent dorsad; the mesal distal process is broader proximally with the slender tip less curved. The outer process is of uniform width, ribbon-shaped to the end where it expands clavately a little and is truncate; it curves cephaloectad.

350. SOLOMONOSOMA CONFIRMANS, sp. nov.

TYPE.—M. C. Z. 5,005. PARATYPE.—M. C. Z. 5,007. Solomons: Pamua (W. M. Mann).

The coloration of this species is like that of *S. nigrum*, the dorsum including entire keels black excepting the obscure reddish middorsal spots. Legs and antennae black. In other general characters also agreeing with that species though obviously larger and more robust.

Distinguished from *S. nigrum* and *didymus* in structure of the gonopods. These have the telopodites shorter and proportionately broader. It may at once be distinguished from the first of these in the much larger outer triangular expansion on the edge of the telopodite which is also farther distad; and from the second in the form of the outer distal process which is of nearly uniform width throughout its length, lacking the conspicuous large cuneate expansion of the end. In *didymus* the inner distal process surpasses the outer one while in *nigrum* the outer is but little the larger; in the present species the outer process is obviously the larger, the inner being distally very slender and somewhat angularly bent in its distal part. Just mesad of base of inner distal process the edge presents an acute tooth.

Length, to near 30 mm.

MIMOSOMA, gen. nov.

Composed of head and twenty segments. In general of the *Orthomorpha* form. The second keel large and below level of the others; other keels decreasing in size caudad and may be essentially obliterated.

ated on segments eighteen and nineteen; caudal angles short but more or less spinous. Anal tergite strongly narrowed caudad, rather narrowly furcate at end much as in Orthomorpha. Pleural keels present, often traceable as far as tenth segment or beyond. Sternites unarmed excepting processes from fifth one in male. Antennae slender, long, joints excepting first and last long, not much differing in length, the sixth clavately enlarged. First legs of male small, not thickened, the third joint without spur or other special modification. Characterized in structure of male gonopods. These much resemble those of *Antichiropus* in having the terminal seminiferous division strongly circularly coiled, the process arising on mesal side and curving first mesad, and then cephalad, ectad and back caudad and mesad. Unlike those of *Antichiropus*, however, the gonopods have the distal end of tibial division ending in a simply rounded lobe.

GENOTYPE.—*M. setosum*, sp. nov.

351. MIMOSOMA SETOSUM, sp. nov.

TYPE.—M. C. Z. 4,994. PARATYPES.—M. C. Z. 4,995. Solomons: Auki (W. M. Mann).

Color of dorsum from chocolate-brown to black, the keels not paler. Antennae the same dark color excepting last two articles, which are white, and commonly also the first two articles which are white, or at least much paler than the contiguous ones. Legs also whitish on proximal and distal joints with intervening ones dark.

Keels with caudal angles produced, spinous. Lateral edge of keels in anterior and middle regions with two or three small but sharp teeth or serrations, the number rising to four in the posterior region. Tergite with sharply impressed transverse sulcus. Surface strongly roughened with numerous more or less irregularly compressed tubercles which bear long stiff setae of which there are about four irregular transverse rows caudad of the sulcus and six in front of it. Keel essentially obliterated from the nineteenth segment and nearly so from the eighteenth.

Length, to 14 mm.

352. MIMOSOMA REDUCTUM, sp. nov.

TYPE.—M. C. Z. 5,010. PARATYPE.—M. C. Z. 5,011. Solomons: Fulakora (W. M. Mann).

Resembling *M. setosum* in general coloration though the dorsum is a less deep black, more brownish; antennae with the first two and the

last two articles similarly white. Legs whitish. The species also resembles *setosum* in having the dorsal surface roughened with granules or minute setigerous tubercles; but this roughening is very much less marked with the hairs much sparser and rather weaker. The keels are proportionately smaller and obviously less elevated, the middorsal region appearing more arched, and the serrations on the lateral edges are much slighter. The keels of the eighteenth and nineteenth segments not abruptly reduced as in the other species. The cauda is shorter and distally broader, subtruncate, not furcate, with angle on each side acute as in *setosum*.

Length (female), 14 mm.

353. *MIMOSOMA GLABRUM*, sp. nov.

TYPE.—M. C. Z. 4,995. PARATYPE.—M. C. Z. 4,997. Solomons: Auki (W. M. Mann).

Similar in coloration to the preceding species but at once recognizable in having the antennae and legs uniformly pale throughout excepting that the last joint of the former has a narrow dark band about its proximal end. Antennae more slender with the joints shorter. The keels are wholly without serrations laterally and those of eighteenth and nineteenth segments not abruptly reduced as in the other form. A most marked difference is that the tergites in the present species are nearly smooth, showing but vague traces of roughening and essentially glabrous, the hairs being scattered, short, and weak. The transverse furrow of tergites weak in strong contrast with the condition in the other species.

Length (male type), near 10.5 mm. Female paratype much stouter and near 13 mm. in length.

354. *MIMOSOMA SEQUENS*, sp. nov.

TYPE.—M. C. Z. 5,012. Solomons: Fulakora (W. M. Mann).

This species resembles *M. glabrum* in having the tuberculation of the dorsum obliterated or reduced to fine obscure granulations with corresponding essential absence of hairs from most of surface. The tergites highly arched. Transverse sulcus obscure. Keels much reduced but clearly set off above by sulci; the posterior angles of most not at all produced, but in the posterior region the spinous points are evident though minute and inconspicuous. Cauda short, trun-

cate, not incised and furcate as in *setosum*. In coloration this species may be at once distinguished from those above described in having the antennae dark, deep brown or blackish, throughout while the legs are pale as in the other forms. In the type the collum is white but this may not be normal. The dorsum otherwise colored as in *glabrum*.

Length, about 10.5 mm.

355. MIMOSOMA GRACILE, sp. nov.

TYPE.—M. C. Z. 5,014. Solomons: Wainoni Bay (W. M. Mann).

This is like the two preceding species in being essentially smooth and glabrous; but unlike those species the transverse sulcus of the tergites is deeply impressed and pronounced nearly to the keels. The keels are small though sharply set off; angles of most not at all produced, a few posterior ones showing short spinous points as in the preceding species; typically they show on the lateral edge two or three minute and widely separated denticles or points. Anal tergite rather strongly narrowed caudad, truncate at end. The dorsum is solid black. Like *M. setosum* the first two antennal articles are light colored but at other end only the seventh article instead of both sixth and seventh is white, the intervening articles black. Legs white. A very slender species.

Length, near 10.5 mm.

SOMETHUS, gen. nov.

Body having the general form of *Strongylosoma*; cylindrical, with the keels reduced, the second one below level of the others. Composed of head and twenty segments.

Antennae long and slender.

Sternites without processes excepting the usual plate on the fifth segment of the male.

Pleural keels present only on second and third segments in the genotype. A process ectad of the base of each anterior leg on each segment, a more obscure one opposite the caudal leg. Pores on segments V, VII, IX, X, XII, XIII, XV-XIX.

Characterized by the structure of the male gonopods. In these the telopodite gives rise near its base on the mesal side to a spur or blade; at the distal end it is bipartite, there being in the type also a short

acute spur arising from the base of the more distal branch, the two distal branches in the form of moderately curved blades extending mesad nearly at right angles to the principal axis.

The first legs of the male thickened and strongly uncate; of the form of those of *Antichiropus*, the third joint bent and showing on the mesal side a thumb-like process. Tarsi of anterior legs with a dense pad of hair beneath as in that genus.

GENOTYPE.—*S. fuscipes*, sp. nov.

356. *SOMETHUS FUSCIPES*, sp. nov.

TYPE.—M. C. Z. 4,684. PARATYPE.—M. C. Z. 4,685. Australia (Henry Edwards).

The general color is a dark grey, in part of brownish tinge or dusky. Collum and vertex of head black. Legs and antennae brown to fuscous.

Vertigial sulcus sharply impressed down to level of antennae. Antennae slender, the second and third joints somewhat longest.

Collum well rounded on each side. Each anterior corner oblique, anterior margin straight at middle. Caudal margin straight. Margined laterally and along oblique part of anterior margin.

All keels set off above by a sharply impressed longitudinal furrow; mostly thick, especially the porigerous ones. Tergites from fifth to seventeenth with a weak transverse sulcus.

The cauda short and broad, plate-like, caudally truncate. Valves sharply margined. Last sternite or scale subtriangular, the sides strongly convex.

In the gonopods of the male the basal spur of the telopodite is a thin lanceolate blade narrowed at each end, a little twisted and extending distad parallel to telopodite proper. The two distal branches are flat blades; of these the more proximal (seminiferous) curves but little and extends almost directly mesad across the middle line, while the distal blade curves obliquely meso-caudad across and above the other one. There is a short angular process above the base of the distal branch.

Length (male), near 30 mm.; width, 2.8 mm.

ANTISOMA, gen. nov.

Composed of head and nineteen segments.

Antennae long and slender; second and third articles longest, the fourth, fifth, and sixth much shorter, subequal.

Segments narrowing in going from the middle forward to the head, the anterior ones much narrowest. First tergite of ordinary form.

Keels of second segment below the keels of contiguous somites. Keels in general narrow, but little raised from surface, high on sides, in no case with posterior angles at all produced. Pores on segments five, seven, nine, ten, twelve, thirteen, and fifteen to nineteen; on dorsal surface. Segments strongly constricted or furrowed between metazonite and prozonite, the latter in front of the furrow nearly as elevated as the metazonite. Metazonites each with a transverse sulcus caudad of which divided by finer sulci into large areas while on each side the tergite is divided into numerous small slightly raised sub-tubercular areas. Anal scutum triangularly narrowed caudad. Anal valves margined.

Small nodular elevations above bases of legs. In the male the first legs much reduced; the second ones larger but obviously much more slender than those succeeding. Tarsi of legs very long.

Gonopods with telopodite not segmented; each subcylindrical, excavated about base above coxa, narrowing distally into a more chitinous, short, flattened unbranched portion; proximally densely clothed with numerous subbacilliform bodies or stout setae; in front of gonopods in genotype two peculiar flattened, oval or spoon-shaped bodies, each on a slender flexible stalk. Gonopods extending caudo-ventrad.

GENOTYPE.—*A. wheeleri*, sp. nov.

357. ANTISOMA WHEELERI, sp. nov.

TYPE.—M. C. Z. 4,658. New Zealand: Wellington (W. M. Wheeler).

Dusky brown above, somewhat paler along transverse sulcus and in a median stripe in front of it. On the prozonites a yellow longitudinal mark on each side of the middle. Paler along back. Lower part of side with a broad but more or less irregular and interrupted longitudinal yellow stripe. Legs fulvous. Antennae brown.

Vertex of head crossed by a short fine sulcus; surface marked off into numerous small areas by a network of impressed lines or sulci; these also covering the face down to the labral region. Hairs very short above, becoming longer below level of the antennae.

Collum laterally strongly rounded; distinctly margined.

Second tergite with a low tooth projecting at anterior corner of each keel. Caudolateral corners of posterior segments oblique, the median part of tergite extending farther caudad than the lateral region; posterior angles of none of the keels at all produced. Of the large areas caudad of the transverse suture there are mostly six or seven on each plate.

Legs long and stout. Third joint of legs dorsally very conspicuously swollen or elevated except proximally. Tarsus much longer than any other segment, slender, moderately curved.

The chitinous distal region of the telopodite of gonopods is flattened from side to side; and expanded like the tail of a fish, the distal edge being similarly notched or excavated, curving a little dorsad; the chitinous structure is continued proximad as a narrow rim along the mesal side of the gonopod. Just proximad of terminal narrower chitinous portion there is from the dorsal side a low triangular plate projecting dorsad.

Width, 2.8 mm.

358. PRIONOPELTIS DASYS, sp. nov.

TYPE.—M. C. Z. 4,701. Fijis: Viria, Ruva River (W. M. Mann).

Brown or in part chocolate colored, the callum and head darker, the keels all yellow and the tip of the cauda somewhat ferruginous. Venter lighter brown. Legs proximally testaceous, distally flavous. Antennae dark brown.

Head with vertigial sulcus distinct down to level of antennal sockets. Surface densely granular or shagreened, in part rugose. Antennae long and slender.

Metagonites densely granular or shagreened both above and down the sides. Collum with a median longitudinal sulcus which is not evident over either anterior or posterior border regions. A deep transverse sulcus present from fourth to nineteenth segments, this extending across from keel to keel excepting on the fourth, on which it is abbreviated and on the nineteenth on which it is also short and rather indistinct. Margin of keels smooth, elevated, on the edge hollowed out only about and a little distance caudad of the pore, the non-porigerous keels not hollowed out as in *P. kelecarti* Humbert.

Pleural keels evident on segments II to V; those on the second and third segments rather vertical than transverse, those of the two others thicker and more nearly longitudinal. Proemea near bases of legs as usual.

Cauda of anal tergite long, subcylindric, distally rounded, much exceeding the valves. The latter strongly margined, coriarius.

Length (female), near 43 mm.; width, 7 mm.

359. PRIONOPELTIS CLARUS, sp. nov.

TYPE.—M. C. Z. 4,630, Fijis: Somo Somo. PARATYPES.—M. C. Z. 4,631-4,633, 4,991. Fijis: Somo Somo, Kunibara, Wainganitu (W. M. Mann). Samoa: Apia (V. L. Kellogg).

Dorsum when in full color deep chocolate, the color extending out on the anterior end of the keels but the remaining portion of the latter fulvous.

Legs fulvous, tinged, except proximally, with brown. Pleural region a little paler than dorsum, venter palest.

Antennae moderately long and slender, the second to sixth articles inclusive but little differing in length. Head smooth, in part obscurely sparsely granular; below level of antennae with numerous straight hairs, with fewer above. Vertical sulcus deep, extending to level of antennae.

Cervical plate with anterior margin smooth, evenly rounded from caudolateral corners. Surface densely granular, with an anterior, a posterior, and an irregularly doubled middle transverse series of larger setigerous tubercles. Other tergites from the third to the eighteenth inclusive with a well-marked transverse sulcus. All from second to nineteenth with well-developed keels having angles distinct, obviously elevated; each with two lateral setigerous teeth, one at the anterior angle and one near middle of length; posterior angles all acute, becoming more and more produced caudad, the processes of the last plates extending directly caudad, rather narrowly acute; lateral margin of keels shallowly longitudinally furrowed, the depression limited by a thin raised edge above and below, the furrow broadest on the poriferous keels. Dorsal surface of all tergites excepting the anal densely granular; each with three transverse rows of larger, more elevated setigerous tubercles, one across anterior border, one just caudad of the sulcus and one along the caudal margin. The hairs distally a little clavate. Sides of metazonites strongly granular like the dorsal surface but without the larger setigerous tubercles. Venter smooth.

Anal tergite triangular, caudally narrowly truncate. Surface more or less distinctly transversely rugose, without tubercles or granules excepting two transverse rows of setigerous ones, one series submedian and one a little in front of caudal end.

Gonopods of male just above femoral division of telopodite with a process or spur extending directly mesad and meeting that from the other gonopod, each spur somewhat expanded beyond the base and curved slightly caudad; the distal division above proximal end curving mesad and then ventrad in contact with that from the opposite member, the seminiferous branch closely applied to it throughout.

360. PRIONOPELTIS HAASTI (Humbert and Saussure).

Polydesmus (Oxyurus) haasti Humbert & Saussure, Verh. Zool. bot. gesellsch. Wien, 1869, 19, p. 683.¹

LOCALITY.—New Zealand: Auckland, Waikato River.¹

361. PRIONOPELTIS BICOLOR Carl.

Rev. Suisse zool., 1902, 10, p. 594.¹

LOCALITY.—New Zealand: North Island.¹

362. PSEUDOPRIONOPELTIS CINEREUS Carl.

Rev. Suisse zool., 1902, **10**, p. 597, pl. 10, fig. 23, 26.¹

LOCALITY.—New Zealand.¹

This is the type of the genus.

363. PSEUDOPRIONOPELTIS MARTINI Carl.

Rev. Suisse zool., 1902, **10**, p. 599, pl. 12, fig. 86-95.

?*Polydesmus (Oxyurus) serratus* Hutton, Ann. mag. nat. hist., 1877, ser. 4, **20**, p. 115.¹

LOCALITY.—New Zealand: Dunedin.¹

It seems impossible to identify this species or to determine its generic position from Hutton's meagre account; and as *serratus* is preoccupied, to do so is unnecessary.

364. ?POLYDESMUS (OXYURUS) WORTHINGTONI Hutton.

Ann. mag. nat. hist., 1877, ser. 4, **20**, p. 115.¹

LOCALITY.—New Zealand: Dunedin.¹

Probably not to be recognized without examination of the type. Hutton states that the segments are "eighteen or nineteen, the same as in the last."

TASMANODESMUS, gen. nov.

Composed of head and twenty segments. Antennae long and slender, distally clavate; second and third articles longest, the fourth, fifth, and sixth subequal. First tergite of ordinary size and form; nearly equal in width to the second. Tergites without sulci or these but obscurely indicated; wholly lacking tubercles or granulations, smooth; each with three transverse series of setae, the caudal one marginal, the others submedian and postmedian respectively, their setae arising from depressions or foveolae. Keels broad, horizontal, the posterior corners angular, in most, especially the more caudal ones, strongly produced; dorsal surface smooth; caudal margin smooth; lateral margin smooth or weakly serrate. Pores dorsal in position, located near beginning of posterior third of length; on fifth, seventh, ninth, tenth, twelfth, thirteenth, and fifteenth to nineteenth somites.

Anal tergite narrowed caudad into cauda of usual form, with transverse series of setae above. Coxae of male gonopods large but mostly concealed in lateral view. Telopodites long, split from distal end to near middle of length into three branches, the middle (semiferous) of these longest, slenderly tipped, branches not coiled.

GENOTYPE.—*Tasmanodesmus hardyi*, sp. nov.

365. TASMANODESMUS HARDYI, sp. nov.

TYPE.—M. C. Z. 4,643. Tasmania (G. H. Hardy).

General color throughout dull brown. Legs a somewhat paler brown.

The head over the vertigial and frontal region uneven, with weak tubercular elevations and corresponding depressions; hairs straight, finely tipped, numerous.

Surface of first tergite also obscurely roughened; with numerous setae, like those of the head, arranged in transverse series. Anterior margin forming an even convex curve from one caudal margin at middle a little incurved. Keels not serrate. Keels of second tergite with caudal corners subrectangular, a small tooth at anterior corner, one near middle of side and one between these two, the two caudal teeth bearing each a short seta, a similar seta also at caudal angle. Keels of third tergite like those of the second, as are also those of the fourth excepting that the posterior angles are a little produced and somewhat less than rectangular while the anterior marginal tooth is more reduced. On the fifth keels the posterior angles are still more produced and more acute; the lateral serrations are weaker and more widely separated, the most anterior one smaller or nearly obliterated and another tooth evident nearer caudal corner. This extra posterior tooth evident on succeeding porigerous keels but not on the non-porigerous. In the posterior segments the teeth are weaker and often scarcely detectable. The angles become more and more produced and acute caudad.

Anal scutum with five transverse rows of setae each of which arises from a small tubercle. Valves with mesal borders a little elevated, not set off with distinct sulci; each with two long setae. Anal scale triangular with caudal end truncate, bearing two long setae.

Legs long; the tarsi specially long and moderately curved, much exceeding any other joint in length.

In the telopodite of the male gonopod the ectal process is slender and acutely pointed, only slightly curved; the mesal branch is a little longer than the ectal, broader, blade-like, and with distal end truncate or a little concave; the principal processes extending cephalad much beyond the other, near level of distal end of the mesal process geniculate, the end portion acute and extending cephalomesad to nearly meet the one of the other gonopod.

Length (male), near 24 mm.; width, 2.8 mm.

LISSODESMUS, gen. nov.

Closely related to *Tasmanodesmus*. The antennae differ from those of that genus in having the second and sixth articles longest, the third a little shorter, the fourth and fifth much shorter. Tergites smooth and shining, without sulci and also lacking the transverse series of setae present in *Tasmanodesmus*, excepting the first and the anal one. The posterior processes of the keels narrower and more acute. Tarsal joint of legs of ordinary length, straight, proportionately much shorter than in *Tasmanodesmus*. Telopodites of the male gonopods very long, in the type reaching to the anterior edge of the first pair of legs of the fifth segment. Coxae concealed in the cavity. Telopodite stout and parallel over proximal two thirds or so of length; distally presenting two principal branches similar in general form, each distally thin and narrowly foliate; on mesal side proximad of level of these principal branches a much smaller slender curved spur which in the type is itself bifurcate.

GENOTYPE.—*L. modestus*, sp. nov.

366. LISSODESMUS MODESTUS, sp. nov.

TYPE.—M. C. Z. 4,644. PARATYPE.—M. C. Z. 4,645. Tasmania: Russell Falls (G. H. Hardy).

The color is a light uniform brown as viewed with the naked eye; but under the lens it shows a fulvous background over which is a close network of brown. Legs and antennae fulvous.

Sulcus crossing vertex of head sharply impressed. A weaker transverse depression or sulcus between antennal sockets which is cingulate, at middle, the angle open ventrally. Head with numerous straight and rather long hairs.

Collum with a series of long erect setae along the anterior margin and another series parallel with the first and a little distance back of it.

Keels of second tergite each with fine lateral serrations or teeth each of which, excepting the smaller one at anterior angle, seems to have been tipped with a long seta. Keels of third and fourth tergites with but three lateral serrations, those of the fifth and succeeding tergites with four.

Cauda widely projecting beyond the anal valves, dorsally with six or seven transverse series of long setae. Mesal margins of valves conspicuously elevated, each valve with two setigerous tubercles. Scale strongly narrowed caudad; caudally truncate, a setigerous tubercle at each angle.

In the gonopods of male the mesal spur extends mesodistad and then directly distad; the ventral branch smaller than the dorsal, both acutely pointed. The mesal of the two principal branches a little distad of its base is

geniculately bent mesad and then at once again distad, the distal part flattened and lanceolate in outline. The outer branch is slender and straight proximally but is thin and expanded distally, its outer margin convex, the mesal straight, as a whole curved mesad to touch with its tip the tip of the mesal branch.

Length, about 16 mm.; width 2 mm.

PAURODESMUS, gen. nov.

This genus is very close in its general structure to the Palaearctic *Brachydesmus*. Like that genus the body consists of the head and nineteenth segments and the general sculpturing is as in *Polydesmus*. It differs in having the keels more elevated, with the posterior angles produced into longer and more slender processes. The body is larger and darker than in that genus, more as in the usual *Polydesmus* forms. Unfortunately no male was secured so that the character of the gonopods cannot be given.

GENOTYPE.—*P. acutangulus*, sp. nov.

367. PAURODESMUS ACUTANGULUS, sp. nov.

TYPE.—M. C. Z. 4,660. Queensland: Kuranda (H. L. Clark).

Color dark brown above, in the middle and posterior regions of a decidedly reddish tinge on keels and back of the principal transverse sulcus.

Antennae moderately long, slender excepting the sixth article which is much thickened; lengths of second, third, fourth, fifth, and sixth articles respectively about .36 mm., .4 mm., .32 mm., .34 mm., and .43 mm. Vertigial sulcus fine, distinct.

Collum equal in width to head inclusive of mandibles, obviously shorter than the second tergite. Laterally subacutely narrowed, the anterior margin evenly convex between the lateral angles, the caudal margin convex between inner ends of keels with mesal portion straight. Anterior and lateral border thin, flat or rather a little upraised especially laterally, not distinctly margined except adjacent to lateral angle a little mesad from which is a second fine longitudinal sulcus; the plane area of the border is extended further caudad at the middle; along the border is a series of well-separated setae, each of which is borne on a small nodule. The area of the collum behind the border is divided into larger setigerous areas or low flat tubercles which form fine transverse rows of which the more anterior are somewhat irregular and incomplete.

On the other tergites there are the three transverse rows of large areas or tubercles as in *Polydesmus*, each tubercle bearing a bacilliform seta; in the

anterior row are eight, in each other row six tubercles, not including two elevated setigerous areas on each keel, of which the posterior one bears the pore. Each keel has laterally three distinct serrations to which in posterior segments a fourth is added at the anterior corner, each tooth bearing at its apex a bacilliform seta. The posterior angles of all keels from the second caudad are distinctly produced, those from the fourth caudad strongly so, the processes in the posterior region especially long and narrowly acute.

Anal scutum strongly narrowed caudad; the cauda narrowly truncate, extending well beyond the valves; dorsal surface bearing numerous bacilliform setae each from a small tubercular base. Valves narrowly but sharply margined. Anal scale triangular.

Legs long; the tarsal joint especially long and slender.

Length, near 13 mm.; width, 1.6 mm.

368. *OPISTHOPODESMUS OBTECTUS* Silvestri.

Term. füz., 1899, **22**, p. 206, pl. 9, fig. 5-7.¹

LOCALITY.—New Guinea: Tamara Island.¹

369. *ASPHALIDESMUS LEAE* Silvestri.

Zool. anz., 1910, **35**, p. 362.¹

LOCALITY.—Tasmania: Hobart.¹

370. *AGATHODESMUS STEELI* Silvestri.

Zool. anz., 1910, **35**, p. 362.¹

LOCALITY.—New South Wales.¹

371. *ICOSIDESMUS HOCHSTETTERI* (Humbert and Saussure).

Verh. Zool. bot. gesellsch. Wien, 1869, **19**, p. 690.¹ Carl, Rev. suisse zool., 1902, **10**, p. 621, pl. 11, fig. 40-45.²

LOCALITIES.—New Zealand: North Island,² Auckland.¹

372. *ICOSIDESMUS OLIVACEUS* Carl.

Rev. Suisse zool., 1902, **10**, pl. 11, fig. 49.¹

LOCALITY.—New Zealand: North Island.¹

373. *ICOSIDESMUS VARIEGATUS* Carl.

Rev. Suisse zool., 1902, **10**, p. 626, pl. 11, fig. 46-48.¹

LOCALITY.—New Zealand: North Island.¹

374. *ICOSIDESMUS SCHENKELI* Carl.

Rev. Suisse zool., 1902, **10**, p. 628, pl. 11, fig. 53, 54.¹

LOCALITY.—New Zealand: North Island.¹

375. *ICOSIDESMUS SUTERI* Carl.

Rev. Suisse zool., 1902, **10**, p. 629, pl. 11, fig. 50-52.¹

LOCALITY.—New Zealand: North Island.¹

376. *ICOSIDESMUS NANUS* Carl.

Rev. Suisse zool., 1902, **10**, p. 631, pl. 11, fig. 55, 56.¹

LOCALITY.—New Zealand: North Island.¹

377. *PACHYURUS FASCIATUS* Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 487, pl. 22, fig. 13; Syst. Polydes.
1900, pt. 2, p. 288, pl. 12, fig. 290, 291.¹

LOCALITIES.—Halmaheira: Gimia, Soah Konorah; Putani. Ternate.¹

378. *PACHYURUS XESTALOMA* Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 22, p. 488.¹

LOCALITY.—Celebes: Minahassa.¹

379. *PACHYURUS ERYTHROKREPIS* Attems.

Abhandl. Senckenb. gesellsch., 1897, p. 489, pl. 22, fig. 12; Syst. Polydes.,
1900, pt. 2, p. 287, pl. 12, fig. 283.¹

LOCALITY.—Celebes: Minahassa.¹

380. *PACHYURUS TRICUSPIDATUS* Silvestri.

Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 14, pl. 2, fig. 69, 70.¹

LOCALITY.—Timor.¹

381. *PACHYURUS SOLOMONIS* Pocock.

Ann. mag. nat. hist., 1897, ser. 6, 20, p. 445.¹

LOCALITY.—Solomons.¹

382. *PLATYRRHACUS ATOPOGON*, sp. nov.

TYPE.—M. C. Z. 4,677. Dutch New Guinea: Manokwari (Thomas Barbour).

The general color above is uniform brown over the metazonites with the prozonites a deeper, blackish brown. Legs and antennae brown, paler, more testaceous proximally.

Antennae exceptionally short; the joints short, strongly elavately thickened above base. Surface of head strongly granular; vertigial furrow as usual.

The collum equalling the head in width; widest anteriorly with the lateral ends narrowly rounded. Anterior margin straight across the middle, the extreme lateral portion set farther caudad than the median portion. Caudal region behind lateral proecesses very strongly convex. Surface densely granular; with four transverse rows of larger, prominent rounded tubereles of which those of the row across anterior border are closely arranged, while those of the caudal and two intermediate rows are widely separated.

Second tergite wider than those following; lateral margin of keels with five teeth between those at the corners whereas the keels of the third segment have but three, of the fourth two and of the following ones three again or in the most posterior ones four. The teeth all angular. Pores on the oblique surface close to the lateral margin from which removed by less than the diameter of the ring. Surface of metazonites densely coarsely granular to the edges of the keels; the tubereles of the three rows all prominent, well separated, those of the caudal row largest and projecting caudad of the posterior margin.

The anal seutum is partly broken off; what remains, however, shows that it widens in some degree caudad of the base. The valves are unusually flattened, the mesal margining narrow and low, the two tubereles of each valve large and rising above the margin; surface granular. The anal scale with surfae granular; subtrapeziform, the caudal edge mesally searcely obtusely angular, the setigerous area large.

The gonopods of the male are much shorter than in *P. ancylagon*. As in the

latter species the telopodite is uncate distally, curving mesad and then proximad and again ectad. At the beginning of the distal curve a flat, slender, acute blade arises which runs mesad and curves but little beyond its base. Dorsad of this the principal strongly curving branch divides near the middle of its length, sending caudad a branch which abruptly expands beyond its base into a plate malleiform in outline, the plate giving rise from its caudoectal corner to a slender acute style; the process beyond this branch continues as a slenderly pointed style the tip of which curves back ectad as mentioned.

Length (male), near 37 mm.; width, 6.5 mm.

The gonopods somewhat suggest those of *P. (Eutrachyrachis) margaritatus* Pocock, a species also described from New Guinea (Victoria Mountain).

383. PLATYRRHACUS ANCYLOGON, sp. nov.

TYPE.—M. C. Z. 4,675. PARATYPES.—M. C. Z. 4,676. Dutch New Guinea: Manokwari (Thomas Barbour).

Deep chocolate to nearly black with a broad continuous median longitudinal yellow or testaceous stripe.

Head with a distinct but not sharply impressed vertical furrow. Surface densely granular. Antennae reaching to third segment.

Collum wider than head. Decidedly widest anteriorly where it projects angularly on each side beyond a subquadrate posterior portion. Anterior margin straight except for a weak curving at the ends; caudal margin straight. Over the anterior border a series of larger tubercles behind which the plate is depressed; larger tubercles also along the caudal border. Surface in general densely tubercular or granular.

The anterior keels strongly bent forward. Caudal angles in general a little more acute than a right angle but obviously produced only on the most caudal segments. The lateral margins with large angular teeth lower on the second and immediately succeeding plates, there being on second and third two triangular teeth in addition to those at the corners. On the fourth and immediately succeeding plates a broader and deeper incision which is less obvious farther caudad where the margin appears slightly concave from end to end and may bear more teeth, the number increasing to three and four between the large corner angles. Pore-ring rather small, remote from the margin, in the anterior region being nearly three times its diameter to the bottom of the nearest incision and in the posterior region rather less than once and a half.

The tergites are coarsely granular over the keels and lateral part of dorsum of metazonites, the tubercles or granules becoming smaller and fewer mesad, the median yellow region being almost smooth.

Anal scutum convex and elevated at base caudad of which flat. Slightly

widening from base to near middle of length and then strongly convexly rounded into a semicircle which is crenate, showing ten to twelve low crenations bearing long setae. Valves strongly margined, coarsely roughened and granular. Scale also granular, caudally weakly convex, with a large setigerous tubercle at each lateral end of caudal border.

Gonopods of male with telopodite distally flattened and strongly uncate, curving dorsad and then caudad and dividing into two long prongs of which the ectal is slender and acute, while the mesal one is proximally flat and blade-like but distally divided again into two slender acute prongs.

Length, to near 55 mm.; width, 10.8 mm.

384. PLATYRRHACUS (DIODONTODESMUS) MIMUS, sp. nov.

TYPE.—M. C. Z. 4,983. PARATYPES.—M. C. Z. 4,984. Solomons: Fulakora (W. M. Mann).

In the form of the gonopods much like *P. verrucosus* (Pocock); but the erect distal process is proportionately longer and more angulate proximally, while the curving transverse prong, though very similar, takes its origin more dorsad and mesad than represented for *verrucosus*.

It is a notably smaller species than *P. verrucosus*, the male having a width of only 5.2 mm. as against 9 mm. in the other species. The dorsum is but little arched, in this contrasting strongly, *e. g.*, with *gonethus*, being more of the *Polydesmus* form. The keels typically weakly protruding only at ends, the intervening region merely concave or in some with one weak rounded tooth or angle or sometimes more. The pore is on the oblique surface at the lateral border less than its diameter from the edge. On posterior plates the three rows of tubercles are distinct and subequal but on anterior plates the middle one may be more weakly developed and sometimes almost obliterated.

Head strongly tuberculate throughout. Antennae heavy.

Color deep brown, prozonites somewhat paler; lateral borders of keels light brown to obscure fulvous.

385. PLATYRRHACUS GONETHUS, sp. nov.

TYPE.—M. C. Z. 4,981. PARATYPES.—M. C. Z. 4,982. Solomons: Fulakora (W. M. Mann).

General color dark brown with extreme lateral edges of keels narrowly yellowish or the lighter color sometimes not evident; prozonites of same color as metazonites or a lighter brown, in immature specimens often whitish.

Antennae of uniform thickness beyond basal joint, reaching to or a little beyond middle of second somite. Surface of head strongly granular excepting lower middle region of labrum which is smooth.

Collum exceeding the head in width. Widest in front of middle of length, the caudal margin at sides bending more strongly forward to the lateral processes than the anterior. Surface densely tuberculate throughout, the tubercles larger laterad; a series of larger tubercles along anterior border and one along caudal.

Second tergite wider than those following; teeth or projecting tubercles strongly marked along anterior edge; lateral margin also with sharply defined teeth, these four in number between the corner ones, as on the third and fourth tergites which are similarly strongly toothed on anterior edges of keels. Succeeding keels mostly normally with four lateral teeth, though some of the posterior ones have five. Teeth prominent but rounded and tuberculiform. Pores dorsal in position and removed from lateral margin by from three to four times their diameter (inclusive of rim). Dorsal surface of tergites with three transverse rows of large, rounded, well-separated tubercles; between these rows in middorsal region are scattered smaller tubercles, the surface otherwise roughened with finer granulations, while laterad and especially on the keels larger tubercles are present in the intervening spaces so that the rows of large tubercles as such are there often not distinctly separable.

Anal scutum subsemicircular, a little more strongly convex in middorsal region, on each side of median caudal region three large but low crenations from each of which arises a large seta. Proximally with transverse rows of obscure tubercles; and on distal half two large setigerous tubercles.

The gonopods of the male place the species in the relatively small group in which the primary distal prongs are subdivided. Gonopod anteriorly curving up dorsad and then caudad and again ventrad; near middle of anterior part of this curve arises the first or ectal prong which is simple, the ventrally directed tip acute; in the angle just above its base arises a much more slender, finely pointed process of about equal length; the principal, more mesal and dorsal, prong is tripartite, the ectal, more proximal, branch being straight and extending subectad, the other two branches curved, with the mesal one a little stouter and longer than the other.

Length of male (type), near 42 mm.; width, 8.2 mm. Width of female to 9.25 mm.

386. PLATYRRHACUS FALLENS, sp. nov.

TYPE.—M. C. Z. 4,985. PARATYPE.—M. C. Z. 4,986. Solomons: Fulakora (W. M. Mann).

Metazonites dark brown; prozonites with brown in a spot on middorsal region, on each side and ventrally, the intervening portions yellow; borders

of keels typically fulvous. In one female the prozonites are nearly uniform in color and the lateral borders of keels are not lighter.

Surface of head uneven, most of it strongly granulatotubercular, the granulations becoming finer toward clypeal region the lower part of which is smooth. Antennae moderately slender, uniform, light colored.

Dorsum more moderately arched, much less strongly than in *P. gonethus* but more strongly than in *mimus*. Three rows of tubercles on tergites distinct, the tubercles moderate or small in size, rounded, widely separated; on some plates the tubercles of median and anterior row are smaller in the mid-dorsal region. The very large pores are very characteristic, each situated on the border slope of keel about its radius or but little more from the edge. Lateral teeth of keels uniform, usually three between corner ones, on some four and sometimes, in the posterior region, five.

Length (male type), near 55 mm.; width, 5.5 mm.

Most easily distinguished by the form of the gonopods of the male which are of the type with more than two distal branches. The gonopod curves up dorsally and back proximally as in *P. gonethus*, etc. On the ectal side at the beginning of the curve are two processes, a proximal one bending back proximad in a hook and a more slender straight one running dorsoectad and slightly cephalad. The main prong divides into two proximally directed, acutely pointed, processes of which the mesal one is larger and more curved.

387. PLATYRRHACUS SCHISTOGON, sp. nov.

TYPE.—M. C. Z. 4,987. PARATYPES.—M. C. Z. 4,990. Solomons: interior of Malaita, Atta, Auki (W. M. Mann).

Most like *P. fallens* in the character of the male gonopods. There are similarly two processes from ectal side but these arise farther up on the curve and are more separated at base with both running proximad and the more proximal one but little more curving than the other. The principal prong bifurcates distally as in the other species into two curved branches of which the mesal is stouter and longer; but unlike the other species there springs from near the base of these two branches a third process which appears as a straight slender spur that runs ectad.

The color is black excepting the lateral borders of keels which, with the legs and antennae, are yellow.

As in the preceding species the posterior row of dorsal tubercles are better and more uniformly developed than the others. The pores are obviously much smaller and are removed from the lateral edge by somewhat more than their diameter. Lateral margin of keel normally

with two or three large rounded teeth, or in posterior region with one or two small intercalary additional ones, between the corner ones, the interval caudad of the first of these teeth larger and deeper.

Head only weakly roughened, tubercles rather small and not dense.

Length (male type), near 34 mm.; width, 6 mm. Width of female, 7.5 mm.

388. *PLATYRRHACUS KATANTES* Attems.

Syst. Polydes., 1900, pt. 2, p. 326, pl. 14, fig. 316.¹

LOCALITY.—New Guinea: Astrolabe Bay.¹

389. *PLATYRRHACUS TUBEROSUS* (Pocock).

Stenonia tuberosa Pocock, Ann. mag. nat. hist., 1893, ser. 6, 11, p. 131.¹

Cyrtorachis trifidus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 13, fig. 17–19.²

Platyrrhacus trifidus Carl, Abhandl. Senckenb. gesellsch., 1912, 34, p. 270.³

LOCALITIES.—Kei Islands: Great Kei, Kei-Dulau,¹ Elat Warka, Waor.³ Aru Islands:² Sungi Manumbai, Wakau, Sungi Panua Bori, between Dabo and Wangil, Wammer, Seltutti, Kobroor, Sungi Kolobolo.

390. *PLATYRRHACUS MARGARITATUS* (Pocock).

Eutrachyrhachis margaritatus Pocock, Ann. mag. nat. hist., 1897, ser. 6, 20, p. 442.¹

LOCALITY.—New Guinea: Victoria Mountain.¹

391. *PLATYRRHACUS VICTORIAE* (Pocock).

Eutrachyrhachis victoriae Pocock, Ann. mag. nat. hist., 1897, ser. 6, 20, p. 442.¹

LOCALITY.—New Guinea: Victoria Mountain.¹

392. *PLATYRRHACUS SANGUINEUS* (Pocock).

Taphodesmus sanguineus Pocock, Ann. mag. nat. hist., 1897, ser. 6, 20, p. 440.¹

LOCALITY.—Celebes: Minahassa.¹

393. PLATYRRHACUS WOODFORDI (Pocock).

Diontodesmus woodfordi Pocock, Ann. mag. nat. hist., 1897, ser. 6, 20, p. 443.¹

LOCALITY.—Solomons.¹

394. PLATYRRHACUS DIONTODESMUS Attems.

Syst. Polydesm., 1900, pt. 2, p. 328.

Diontodesmus verrucosus Pocock (*nom. preocc.*), Ann. mag. nat. hist., 1897, ser. 6, 20, p. 444.¹

LOCALITY.—Solomons.¹

395. PLATYRRHACUS CONCOLOR (Peters).

Polydesmus (Stenonia) concolor Peters, Monatsber. Akad. wiss. Berlin, 1864, p. 544.¹

Platyrrhacus concolor Attems, Syst. Polydesm., 1900, pt. 2, p. 321.²

LOCALITIES.—Ternate: Dodinga, Mati.^{1, 2} Halmabeira.²

396. PLATYRRHACUS COMPLICATUS Attems.

Abhandl. Senckenb. gesellsch., 1897, 23, p. 492, pl. 22, fig. 17, 18; Syst. Polydesm., 1900, pt. 2, p. 323, pl. 14, fig. 337, 338.¹

Eutrachyrhachis gestri Silvestri, Ann. Mus. civ. Genova, 1898, 38, p. 443.

LOCALITIES.—Ternate. Halmabeira. Gimia.¹

397. PLATYRRHACUS ANNECTENS (Humbert and Saussure).

Polydesmus (Stenonia) annectens, Humbert & Saussure, Verh. Zool. bot. gesellsch. Wien, 1869, 19, p. 677.¹

LOCALITY.—Moluccas.¹

398. PLATYRRHACUS HAPLOPUS Attems.

Abhandl. Senckenb. gesellsch., 1897, 23, p. 494, pl. 22, fig. 14;¹ Syst. Polydesm., 1900, pt. 2, p. 323, pl. 14, fig. 324.¹

LOCALITY.—Halmabeira: Soah Konorah.¹

399. PLATYRRHACUS GEORGOS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 494.¹LOCALITY.—Halmaheira: Soah Konorah.¹

400. PLATYRRHACUS AMAUROS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 493.¹LOCALITY.—Ternate.¹

401. PLATYRRHACUS AMBLYODON Attems.

Syst. Polydesm., 1900, pt. 2, p. 325, pl. 14, fig. 335.¹LOCALITY.—Pelew Islands.¹

402. PLATYRRHACUS PERGRANULOSUS Silvestri.

Ann. Mus. civ. Genova, 1895, **34**, p. 639.¹LOCALITY.—New Guinea: Moroka.¹

403. PLATYRRHACUS INSULARIS (Humbert and Saussure).

Polydesmus (Stenonia) insularis Humbert & Saussure, Verh. Zool. bot. gesellsch. Wien, 1869, **19**, p. 671.¹LOCALITY.—Moluccas.¹

404. PLATYRRHACUS MOLUCCENSIS (Peters).

Odontodesmus moluccensis Peters, Monatsber. Akad. wiss. Berlin, 1864, p. 543.¹
Taphodesmus moluccensis Cook, Brandtia, 1895, **1**, p. 1.LOCALITY.—Moti.¹

405. PLATYRRHACUS PERGRANULATUS (Silvestri).

Acisternum pergranulatum Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 13.¹LOCALITY.—South Celebes: Bantimurung.¹

406. *PLATYRRHACUS DADAYI* (Silvestri).

Eutrachyrhachis dadayi Silvestri, Term. füz., 1899, **22**, p. 208, pl. 10, fig. 15-17, pl. 11, fig. 18-21.¹

LOCALITY.—New Guinea: Astrolabe Bay, Erima.¹

407. *PLATYRRHACUS BEAUFORTI* Attems.

Bijdr. dierk., 1915, **20**, p. 6, pl. 1, fig. 3-6.¹

LOCALITY.—Ceram: Honitetu.¹

408. *PLATYRRHACUS MEDIOTAENIATUS* Attems.

Bijdr. dierk., 1915, **20**, p. 7, pl. 1, fig. 7.¹

LOCALITY.—Ceram: Honitetu.¹

409. *PLATYRRHACUS PULIGER* Attems.

Bijdr. dierk., 1915, **20**, p. 7, pl. 1, fig. 8, 9.¹

LOCALITY.—Waigeu: Kaiawat, near Beo, Bahan.¹

AIPOTROPIS, gen. nov.

Composed of the head and twenty segments. Thirty-one pairs of legs. Head completely, or very nearly completely, covered by the first tergite. Antennae long; strongly clavate distad of end of third article, the fifth and sixth articles much enlarged, the seventh again narrower, subconical; the fifth article much the longest, in length about equalling the sixth and seventh together. Collum with anterior and lateral borders together forming an even semicircular line. The free border or rim crenate as in *Lophodesmus*, radial sulci similarly dividing it into ten lobes. Dorsum of tergites in general low, only weakly convex; the keels high, but little below highest part of dorsum and much above the middle level of the body. Keels broad, nearly horizontal, lateral and caudal border divided into lobes by radial sulci, the margin crenate or lobate. Surface of tergites including keels out as far as the border lobes covered with numerous minute tubercles or coarse granules; in addition two submedian longitudinal

rows of large tubercles and a row on each side, each of the four rows in each tergite consisting of three well-separated tubercles. Posterior angles of several plates produced. Pores on segments five, seven, nine, ten, twelve, thirteen, and fifteen to nineteen not borne on cones or special tubercles; each removed from margin, occurring on upper surface of caudolateral lobe. Anal tergite exposed from above; presenting two prominent ridges projecting caudad as rounded tubercles over the small, subneoneal pygidium proper. Coxal pieces of male gonopods small, not at all enlarged as in *Lophodesmus* though somewhat similar in form and position; the distal element very elongate, extending forward over the preceding segment and bifurcate into two short branches at tip.

GENOTYPE.—*A. atopus*, sp. nov.

410. AIPOTROPIS ATOPUS, sp. nov.

TYPE.—M. C. Z. 4,600. Fijis: Lomati (W. M. Mann).

General color of metazonites above brown. The keels below brown distally but fulvous in a broad band across base. Pleural region again brown and the venter fulvous. Legs fulvous. Antennae with background fulvous, the first four and the ultimate article tinged with brown.

The head above level of antennae very densely finely tubercular and granular. In the type the left antenna greatly exceeds the right in size, the latter probably a degenerated one.

Rim of collum narrow, lobes considerably thickened. Middle region densely finely tubercular and granular; with two transverse rows of large rounded tubercles of which there are four in the anterior and six in the posterior.

Keels of other tergites typically trilobate laterally; in the posterior region the most posterior of these lobes is separated off by a deeper incision and shows a tendency to subdivide as it does essentially on the three segments preceding the ultimate. On the caudal margin of each keel in all but several of the most caudal segments are three lobes, decreasing in size mesad, ectad of the outer longitudinal row of large tubercles the caudal one of which on each tergite projects as a lobe from the caudal margin; between the lateral row of tubercles and the corresponding submedian one are two weaker crenations on the caudal margin and also two between the two submedian rows. At the base of each caudolateral lobe on the porigerous segments a large special tubercle excepting on the seventeenth, eighteenth, and nineteenth somites on which the pores are more widely removed from the margin. Beginning with the sixteenth segment the caudolateral corners of the keels are produced more and more caudad, the processes of the twentieth extending straight caudad and distally narrowly rounded.

Apical blades of male gonopods extending forward parallel with each other nearly to the anterior edge of the sixth segment; inner branch at tip short, very slender, acute, curved with concavity caudad, giving exit to the seminiferous duct, the tip lying close to or against the outer branch. Outer branch a flattened, distally somewhat expanded blade or plate.

Length, 9.5 mm.; width, 1.75 mm.

411. *AIPOTROPIS INSIGNIS*, sp. nov.

TYPE.—M. C. Z. 4,601. PARATYPES.—M. C. Z. 4,602, 4,609. Fijis: Nadarivatu, Vanua Ava (W. M. Mann).

The male gonopods are very similar in general structure to those of *A. atopus*; the principal or distal pieces are less narrowed below the bifurcation; a readily observed difference is in the inner or seminiferous distal branch which is stouter and distally less acute and beyond middle is not curved, extending straight distad well beyond and well apart from the outer division or plate.

The coloration in general similar to that of the preceding species; but the longitudinal band on under surface of keels weaker and largely obscured by encroachment of the darker pigment and on some keels wholly eliminated. Prozonites with median dorsal reddish brown area broader than in *atopus*, the yellow band each side correspondingly narrower. Antennae with first four articles brown, the fifth and sixth white, the seventh with background white but darkened with brown especially proximally. Granular frontal region of head blackish.

In the first tergite the emarginations are much weaker and the lobes with free margins only slightly rounded, broader than in the other species. Median portion of plate more depressed with the large tubercles of the two transverse rows less conspicuous. The surface of the tergites in general much more coarsely and strongly tubercular with the large tubercles of the four longitudinal rows much less prominent. The obviously more prominent tubercle cephalomesad of each pore in *A. atopus* not distinctly present in the present species. Pores on anterior plates considerably more widely removed from the margin. Lobes of keels in general less rounded, more angular.

A larger, more robust, species, the length of the type (male), being close to 12 mm. with the width 2 mm.

412. *AIPOTROPIS VARIANS*, sp. nov.

TYPE.—M. C. Z. 4,610. PARATYPES.—M. C. Z. 4,611. Fijis: Munia (W. M. Mann).

Coloration in general as in *A. insignis*. In the type the proximal articles of antennae but little darker than the others.

Antennae shorter; the fifth article shorter in comparison with the third.

The first tergite differs from that of the two other species in having a narrow rim in front beneath the free border and toward its caudal edge, this rim fitting with its lower edge against the head and expanding laterally into the usual end pieces. In the type it also differs in having twelve border lobes instead of only ten, the end lobes being subdivided; but in the young paratypical specimens the end lobes are large but not subdivided; whether always subdivided in adults it is impossible at present to say. The lobes of the keels in number and arrangement as in the other species. The marginal teeth more rounded than in *A. insignis*. Upper surface of tergites strongly densely tuberculate, the large tubercles of the four longitudinal rows prominent. A special elevation or tubercle on base of caudolateral lobe of each porigerous keel; on the other keels a very prominent elevation proximad of the middle lobe. Differing in that the caudolateral angles of the sixteenth keels are not or scarcely produced caudad beyond caudal margin, the seventeenth but little so, and the processes of eighteenth and nineteenth proportionately shorter. Dorsal cones of anal tergite large, not fully reaching end of cauda proper.

Length, 9.5 mm.; width, 1.6 mm.

413. AIPOTROPIS LASEMANUS, sp. nov.

TYPE.—M. C. Z. 4,612. PARATYPES.—M. C. Z. 4,613. Fijis: Laseina (W. M. Mann).

Distinguished from *A. atopus* and *insignis* in the structure of the gonopods. These are in general very similar. But they are shorter, reaching only to the anterior end of the prozonite, and are more strongly bowed mesad; the dorsal curve and the constriction at distal end less pronounced; the distal divisions are shorter and the mesal one on each side extends at first nearly horizontally mesad and then runs cephalad, the latter portion shorter than the former, crossing the one from the opposite gonopod, widely separated from the outer lobe and not extending distad beyond it or scarcely so. The apical division or blade with total length but two and a half times the greatest longitudinal diameter of the coxa as against three and a half times in *A. atopus*.

Coloration similar to that of *A. atopus* excepting that the background of the metazonites above is flavous with the dark brown or dusky color mostly confined to the coarser tubercles; first tergite entirely dark; ventral longitudinal fulvous band of keels more sharply limited than in *atopus*.

In the first tergite the free margins of the lobes much less convexly elevated. Median region very similar but the tubercles in general rather coarser. Border lobes of other tergites rather more thickened and somewhat more coarsely granular.

The anal segment very similar. Anal scale longer with the caudal margin between the tubercles strongly convex or angular instead of nearly straight.

Length a little uncertain because of broken condition of the type, but about 11.5 mm.; width, 1.8 mm.

PILOCHILUS, gen. nov.

Agreeing in general with *Aipotropis*. The first tergite not quite completely covering the head in dorsal view, a little of the latter being exposed in front. Most readily distinguished from the genus mentioned in having the lobed free border vertical in position and extended ventrad into a supplementary band the lower edge of which fits against the head; in the other genus such a supplementary band is weakly indicated only at each caudolateral end of the border. The anal tergite is larger, the cauda extending prominently beyond the paired dorsal processes. The lobes of the keels are more serrate in form. The male gonopods are in general similar; but the terminal branches of the blades are longer and stouter, the seminiferous one blade-like, the outer branch wide, curved. Head entirely smooth, upper part not tubercular as in *Aipotropis*. Antennae long, all articles much longer than thick; fifth and sixth much thickened; the fifth longest.

GENOTYPE.—*P. cynephor*, sp. nov.

414. PILOCHILUS CYNEPHOR, sp. nov.

TYPE.—M. C. Z. 4,603. PARATYPES.—M. C. Z. 4,604, 4,608. Fijis: Nadarivatu, Nasoqo (W. M. Mann).

Metazonites deep dusky or blackish brown above, the under surface of keels crossed longitudinally by a paler band which may be obscure; the pleural region of both metazonites and prozonites reddish or chestnut to black; venter pale brown to fulvous; prozonites above with a median longitudinal reddish brown or chestnut band set off on each side by a wide fulvous stripe. Head chestnut, much darker above level of antennae, the dark region enclosing numerous lighter areas. Antennae with first four articles chestnut, the fifth

and sixth abruptly white as in species of *Aipotropis*, but the former more or less darkened at proximal end, the seventh article chestnut excepting distal end which is white. Legs fulvous or testaceous proximally, becoming darker, light chestnut distally.

Head above very finely coriarius, with trace of tubercles or granules, below level of antennae the roughening somewhat coarser. Vertex crossed by a distinct median longitudinal sulcus which ends far above the antennae. Antennae long, the fifth and sixth articles greatly thickened; fifth article much the longest, the third next.

Free edge of first tergite but little elevated. The crenations or lobes broad and low. Surface but little elevated, densely finely tubercular throughout; with the usual two transverse rows of larger tubercles; these prominent, large, and rounded, the first row embracing four, the second six of which the two median ones are adjacent to the caudal margin. The surface of the tergites in general strongly densely tubercular. Four longitudinal rows of larger, more prominent tubercles as usual; three tubercles in each series on each tergite but the most caudal of these lower and often inconspicuous or almost obliterated as such; in addition on each side of the non-porigerous tergites between the lateral row and the lateral lobes of the keels a single large tubercle in line with a large elevated tooth projecting from the caudal margin. Keels laterally coarsely serrate, there being three teeth on the keels of the second to sixth tergites inclusive, and thereafter three on the non-porigerous and four on the porigerous keels. Caudal angles of posterior keels more and more produced caudad, the processes of the fifteenth to nineteenth in particular long and subacute; the processes of the eighteenth and nineteenth keels very slender. The caudal margin of each keel just mesad of the caudal corner with a large obtuse tooth, the edge mesad of this weakly serrate; but caudad the entire caudal margin of tergites more strongly crenate, the crenations finally becoming more acute and on the eighteenth and nineteenth projecting as acute teeth. Pores above and well removed from margin, on base of caudal lobe, the surface about and beneath each one elevated as a low rounded mound. Venter of metazonites subdensely pilose. Last tergite large, triangular; at middle above two large conical tubercles and on each side in line with them a very slender marginal tubercle or cone; just proximad of the distal end a transverse row of four much smaller tubercles, the one at each end marginal, setigerous; on each lateral margin toward base a long slender tubercle bearing a long stout seta; four long setae at tip of cauda.

The apical pieces of the gonopods extending forward to the caudal edge of the ridge between the anterior legs of the sixth segment; they are rather broad flattened blades; the two terminal branches are both thin and flattened, blade-like, with the outer one curving mesad above the tip of the mesal one which is curved a little in the opposite direction.

Length (female), to ca. 15 mm.; width, 2.5 mm.

415. *PILOCHILUS PALLIDIOR*, sp. nov.

TYPE.—M. C. Z. 4,605. Fijis: Nadarivatu (W. M. Mann).

Contrasting with the preceding species in having the tergites light brown instead of deep, almost black, brown. The lighter markings are as in the other species but lighter fulvous in color.

The head is testaceous instead of chestnut, the first articles of antennae the same color, the fifth and sixth white as usual.

It is in proportion to length a decidedly narrower species.

The face is densely clothed with straight, moderately long hairs which extend up from clypeus to vertex.

The crenations or free edges of the marginal lobes are somewhat higher; on the median portion are much more prominent, of low conical form, instead of being very low and depressed.

On the other tergites the large seriate tubercles are arranged as in the other species; on the anterior plates particularly they are rather more conspicuous, and more conical in form. The serrations of the keels in general the same. A readily noticed difference is in the outermost large tooth on the caudal margin of each keel, this lying nearer to the lateral edge, with the excision between it and the caudolateral tooth or lobe more acute, the ectal side of the caudal tooth running a little ectad of caudad instead of clearly mesocaudad as it does in *cynephor*. The caudal margin of the tergites between the keels is more or less clearly crenate even in the first tergites instead of remaining straight until the posterior region is reached. The large paired dorsal tubercles of the anal tergite are obviously larger than in *P. cynephor* while the corresponding marginal tubercles are smaller; the cauda beyond the principal tubercles shorter and narrower, whitish in color, its tubercles less prominent.

Length, 15 mm.; width, 2.1 mm.

ATOPODESMUS, gen. nov.

Composed of head and nineteen segments. Antennae short and clavate. First tergite nearly completely covering the head from above; wholly lacking any distinct lobate border. Characterized especially by having the second tergite much wider than the first and also exceeding the following ones, widely expanded at each end with the anterior corner overlapping the first tergite and the posterior extension in the coiled animal extending far beneath the third keels; lateral margin with numerous crenulations. Succeeding keels much

shorter (*i. e.* anteroposteriorly) and with fewer crenuli; caudad the marginal incisions deepen, on most leaving four separated lateral lobes. Pores located above base of keels near middle of length of segment and thus widely removed from the margin; apparently on segments five, seven, nine, ten, twelve, thirteen, and fifteen to seventeen inclusive; moderately prominent. Tergites all strongly tubercular, the tubercles uniform and extending out over keels, no middorsal series of larger tubercles. Last (nineteenth) tergite large, narrowed caudad with sides convex, widely overlapping the valves, dorsal surface densely tubercular.

GENOTYPE.—*A. parvus*, sp. nov.

416. *ATOPODESMUS PARVUS*, sp. nov.

TYPE.—M. C. Z. 4,648. PARATYPE.—M. C. Z. 4,649. Tasmania (G. H. Hardy).

General color brown. Legs and antennae fulvous.

Head covered above by a median longitudinal sulcus. Surface above level of antennae densely finely granular, the granulations coarser above.

Tubercles of tergites small, uniform, densely arranged. On average tergites five or six transverse rows of tubercles. Tubercles each with a very short, curved seta. Lateral margin of second tergite with eight or nine crenulations. Other keels normally with four lateral crenuli or lobes of which the anterior tends obviously to recede caudad. Caudal margin of most keels with a single large conical tooth close to the base. Posterior angles of last few keels weakly produced.

Anal scutum above densely tubercular. Extending beyond valves with the margin extending or cupping down about them. Anal valves smooth; each with two setigerous tubercles situated about midway between mesal and ectal margins.

Length, near 6 mm.

417. *PLUSIODESMUS FELIX* Silvestri.

Term. füz., 1899, **22**, p. 209, pl. 11, fig. 22-25.¹

LOCALITY.—New Guinea: Tamara Island.¹

418. *LOPHODESMUS PUSILLUS* Pocock.

Weber's Reise, 1894, **13**, p. 372, pl. 22, fig. 12.¹

LOCALITY.—Flores: Maumerie.¹

This is the type of the genus.

419. *LOPHODESMUS LAMPRUS*, sp. nov.

TYPE.—M. C. Z. 4,597. PARATYPES.—M. C. Z. 4,598, 4,599. Fijis: Somo Somo, Lasema (W. M. Mann).

The metazonites above are dark brown with the keels fulvous excepting along the margins where the dark color is maintained, or sometimes dark throughout. Prozonites and head fulvous, the latter punctate with brown above; legs, antennae, and porigerous cones paler, whitish.

The head conspicuously tubercular above the level of the antennae, the outer row of tubercles on each side curving ectad above. Hairs of face numerous, exceedingly short.

First tergite of usual form, presenting below a marginal lobate rim in which the emarginations are deep and the lobes well rounded; front face of the median portion steep, almost vertical; the height obviously exceeding the length; surface densely tubercular and with two transverse series of much more prominent tubercles which are widely separated, four tubercles in the anterior of these series and six in the posterior. Other tergites with three principal transverse rows of tubercles but an irregular and incomplete fourth row often traceable. Dorsal combs high, the three tubercles of each fused at base; the tubercles of the prominent lateral series also high and conspicuous. The submedian combs of three tergites preceding the ultimate progressively higher, those of the nineteenth basally fused together and projecting caudad widely beyond the anal tergite which is thus completely concealed from above. The keels of the second tergite laterally trilobed with the median lobe smallest; the other non-porigerous keels laterally bilobed excepting the seventeenth and eighteenth, which are trilobed. The porigerous keels are as if laterally trilobed with the caudal lobe subdivided and the pore-cone projecting freely between the two resulting smaller lobes. The marginal lobation and the position of the pore-cone readily distinguish this form from *L. pusillus*, the genotype, and the Javan *lobulatus*.

In the male gonopods in lateral view projecting below the large coxa, in a place bent forward and then slightly up at tip, somewhat avicular in form.

Length, to about 6.5 mm.; width, 1.1 mm.

420. *TRESELOBUS CONFORMANS*, sp. nov.

TYPE.—M. C. Z. 4,592. PARATYPES.—M. C. Z. 4,593. Fijis: Somo Somo (W. M. Mann).

Color above dark brown, the keels paler, more fulvous. Sternites with legs and antennae fulvous; head the same excepting frontal, region which is finely dotted with brown.

Body not quite five times longer than wide. Dorsum high, the keels narrow, strongly depressed.

Across the vertex of the head a furrow limited on each side by a prominent broad ridge which is weakly tubercular and covered with fine points like those of the tergites, this ridge bending ectad above as a much narrower and thinner ridge. Labrum abruptly depressed below level of clypeal region.

Free border of first tergite with the usual ten marginal areas. Elsewhere the tergite is strongly convexly elevated, and covered with numerous, closely arranged prominently protruding rounded tubercles of which eight are larger than the others. Other tergites crossed with four transverse rows of closely arranged tubercles of which the most anterior and most posterior are most poorly developed and the posterior in particular are often incomplete; the usual two submedian crests formed by rows of larger tubercles, three in each row on each plate, not very conspicuous, no similar prominent lateral row on each side; two rows of small tubercles between these. Lateral margin of keels of second and of seventeenth, eighteenth, and nineteenth tergites trilobed, of others bilobed, the emarginations weak. Pore-papillae at apex of deeper emarginations in caudolateral corners, subvertical to surface. Last tergite prominently exposed from above, the margin crenate, showing six lobes; two smooth, continuous ridges corresponding to the median rows of tubercles of other plates, no tubercles elsewhere. Tubercles of median rows on penult tergite not more prominent.

Gonopods of usual general type.

Length of type, 5 mm.; width, 1 mm.

421. TRESEOLOBUS INCONSPICUUS, sp. nov.

TYPE.—M. C. Z. 4,594. PARATYPES.—M. C. Z. 4,595, 4,614. Fijis: Munia, Lasema, Somo Somo (W. M. Mann).

In coloration like the preceding species. It is a somewhat smaller and more slender form with similar structure and appearance. The keels are a little narrower and slightly less depressed. The transverse rows of tubercles are alike though with fewer tubercles in a row, normally twelve, as against fourteen in the average of *T. conformans*. The tubercles form distinct longitudinal rows whereas in *conformans* they are more singular. The tubercles of the two submedian longitudinal rows are much less prominent, being scarcely more elevated than the others on many of the tergites; correspondingly the ridges of the anal tergite are much lower and the lobes at their caudal ends do not project caudad of the adjacent lateral ones as they do in most species, the line of the apices of the four caudal lobes being thus nearly straight, the emargination separating off the anterior lobe on each side shallow the anterior lateral lobe equalling or exceeding in length the one caudad of it, whereas it is shorter in *T. conformans*. The lobation

of the keels in general similar; but an obvious difference in that the excision opposite the angle of which the pore-cone stands is narrower and more caudal in position, not at the corner, the caudal lateral lobe thus extending farther caudad to the general line of the caudal margin of the tergite instead of lying obviously in front of it as it does in *T. conformans*; the cones are lower, rather thick, a little more remote from the margin.

Length, 4.6 mm.; width, .8 mm.

EUPORODESMUS, gen. nov.

Composed of head and twenty segments. Antennae moderately long and slender, clavate; the articles much longer than thick, the third and sixth longest, the fifth obviously shorter than the sixth; fifth and sixth articles at distal end above with a small group of sensory cones. First tergite completely covering the head from above. The free anterolateral border wide, horizontal, divided by radial sulci into twelve lobes but without corresponding emarginations, the margin being evenly continuous. Keels of other tergites widely horizontally extended; the lateral and caudal borders divided into lobes by radial sulci but the margins entire or with but slight emarginations. Surface of tergites not truly tubercular or granular but divided by deep furrows into convexly rounded large areas of which there are three transverse rows. Pores opening through short cones or subglobular elevations situated on dorsal side of keel remote from the margin, each occurring at the mesal end of the sulcus separating the caudolateral lobe from the one just in front of it. Pores on segments five, seven, nine, ten, twelve, thirteen, and fifteen to nineteen. Anal tergite large, triangular, fully exposed from above.

GENOTYPE.—*E. solitarius*, sp. nov.

422. EUPORODESMUS SOLITARIUS, sp. nov.

TYPE.—M. C. Z. 4,606. PARATYPE.—M. C. Z. 4,607. Fijis: Nadarivatu (W. M. Mann).

Color of tergites dark brown, on the keels showing under the lens numerous lighter areolations. Pleural region of both metazonites and prozonites also dark brown. Venter fulvous. Legs brownish in a network of lines over a fulvous background, the trochanters contrasting by their paler color with the

other articles. Head above level of antennae dusky, almost black in type, the lower region areolated with light.

Vertex of head crossed by a shallow sulcus.

Median region of first tergite only moderately elevated, divided into large areas by weak or in part obscure furrows. On the second and third metatergites the region between the keels divided into only two transverse series of areas, while the succeeding ones show three. Of these the areas of the anterior series are largest, those of the posterior smallest and most irregular. The keels of the non-porigerous tergites each show three lateral lobes while on all the porigerous keels there are four. The caudal border of each keel shows two shorter sulci of which the more mesal is the shorter. The caudal margin of the second keel is nearly straight and transverse, while beginning with the second the margin curves more and more caudad in extending outward to the angle, the posterior corners in the posterior segments being strongly and subacutely produced. The caudal margin of the nineteenth segment alone is serrate, the projecting teeth six in number, acute. Last tergite triangularly narrowed caudad, the cauda very narrowly truncate. Above with two transverse rows of small setigerous tubercles, one row of four tubercles near the middle and the other but little removed from the caudal end, the lateral tubercles in each row marginal. Caudal margin of the rather large anal scale but slightly convex between the two marginal setigerous tubercles.

Length (female), 9.5 mm.; width, 1.75 mm.

JULOIDEA.

JULIDAE.

423. JULUS (OPHIULUS) FALLAX Meinert.

The occurrence of this common European species in Tasmania and New Zealand, doubtless due to introduction, is worthy of note. It agrees closely with *J. fallax* as represented in England and Ireland. The gonopods (New Zealand specimens) seem to differ slightly in having the anterior laminae rather narrower and longer with the inner branches not reaching quite so near to the distal end of the outer branch, though more extensive comparisons may show this difference inconstant. The glandular processes of the second legs are longer than wide. Segments as in the typical form.

LOCALITIES.—New Zealand: Wellington, Day's Bay, Rotorna, Lake Takopema near Auckland, August 1914 (W. M. Wheeler). Tasmania (G. H. Hardy).

424. JULUS LUSCUS Meinert.

Nat. tidsskr., 1868, 3. R., p. 9.

Diploiuulus luscus Silvestri, Fauna Hawaiiensis, 1904, 3, p. 338.¹

LOCALITY.—Hawaiian Islands: Hawaii: Kona.¹

A common European species without doubt introduced by man.

CAMBALOIDEA.

CAMBALIDAE.

425. DIMEROGONUS ATER, sp. nov.

TYPE.—M. C. Z. 4,823. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

Differs in many features of the gonopods from *D. insulanus* Attems. The median plate of the anterior pair is smaller and narrower; it has the anterior end mesally acutely incised. The mesodistal process of the coxal piece of anterior gonopods differs; the membranous lobe adjacent to this process on ectal side is more slender, not pointed distad, and is longer, much exceeding the distoectal lobe on the end of which, instead of short hairs, there is a series of many long setae like those of the posterior or distal branch of the gonopod. The latter branch instead of being subvertical extends obliquely from its attachment distomesad, its distal end lapping over the tip of the posterior gonopod as well as concealing largely the pseudoflagellum; with long setae at the end. The posterior gonopods somewhat intermediate between the form in *D. insulanus* and *orophilus*, the distal joint not sharply set off, a somewhat curved and slightly twisted thin process extending beyond the stouter, distally truncate and setigerous lobe representing the end of the first or principal joint, the setigerous lobe being smaller than in *D. orophilus* and larger than in *insulanus*.

The general color is solid black throughout, excepting the middle part of collum and lower part of face, the extreme caudal margin of the anal scutum and the legs and antennae which are ferruginous; also an annulus about the caudal border of each segment is paler; the anterior region of annulus of ferruginous cast.

Number of segments, fifty-two.

Diameter (male), 3 mm.

426. DIMEROGONUS KAORINUS, sp. nov.

TYPE.—M. C. Z. 4,865. PARATYPES.—M. C. Z. 4,866. New Zealand: Kaori Forest, near Swainson (W. M. Wheeler).

Differs from *P. ater* chiefly in the character of the gonopods. The anterior median plate offers an easy means of distinction; this is constricted at middle, expanding from here clavately distad with the end bifurcate, the mesal excavation between the arms deep and rounded at bottom. The inner distal process of the coxal or anterior piece of the first gonopods is shorter, and differs in being clavately widened distad and in curving distoectad instead of being essentially straight.

The lower part of collum narrower, the lateral edge arising from the caudolateral corner more obliquely than in *ater*.

Coloration nearly as in *ater*.

Number of segments, forty-six to fifty-four.

Diameter of male, 3.1 mm.; of female to 3.9 mm.

427. DIMEROGONUS OROPHILUS Attems.

Zool. jahrb. Syst., 1903, **18**, p. 84, pl. 7, fig. 1-6.¹

LOCALITY.—New South Wales: Blue Mts., near Sydney.¹

428. DIMEROGONUS INSULANUS Attems.

Zool. jahrb. Syst., 1903, **18**, p. 86, pl. 7, fig. 7-14.¹

LOCALITIES.—New Zealand: Day's Bay near Wellington, Plumerton (W. M. Wheeler). Stephens Island.¹

429. DIMEROGONUS AVEBURYI Silvestri.

Fauna Hawaiïensis, 1904, **3**, p. 330, pl. 11, fig. 18-21.¹

LOCALITY.—Hawaiïan Islands: Maui: Haleakala.¹

430. DIMEROGONUS SHARPI Silvestri.

Fauna Hawaiïensis, 1904, **3**, p. 330, pl. 11, fig. 22-27.¹

LOCALITY.—Hawaiïan Islands: Maui: Haleakala.¹

431. DIMEROGONUS SHIPLEYI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 332, pl. 11, fig. 28.¹LOCALITY.—Hawaiian Islands: Maui: Haleakala.¹

432. DIMEROGONUS CARPENTERI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 332, pl. 11, fig. 29, 30.¹LOCALITY.—Hawaiian Islands: Lanai.¹

433. DIMEROGONUS BEDDARDI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 333, pl. 11, fig. 31–33.¹LOCALITY.—Hawaiian Islands: Maui: Haleakala.¹

434. DIMEROGONUS POCOCCI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 334, pl. 11, fig. 34, pl. 12, fig. 35–40.¹LOCALITY.—Hawaiian Islands: Molokai: Molokai Mts.¹

435. DIMEROGONUS SEDGWICKI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 334, pl. 12, fig. 41–46.¹LOCALITY.—Hawaiian Islands: Oahu: Waianae Mts.¹

436. DIMEROGONUS SINCLAIRI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 335, pl. 12, fig. 47–51.¹LOCALITY.—Hawaiian Islands: Maui: Haleakala.¹

437. DIMEROGONUS LANKESTERI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 336, pl. 12, fig. 52.¹LOCALITY.—Hawaiian Islands: Kauai: Halemanu.¹

438. DIMEROGONUS HARMERI Silvestri.

Fauna Hawaiiensis, 1904, **3**, p. 336, pl. 12, fig. 53–56.¹LOCALITY.—Hawaiian Islands: Molokai.¹

439. DIMEROGONUS PERKINSI Silvestri.

Fauna Hawaiiensis, 1904, 3, p. 337, pl. 12, fig. 57-12.¹LOCALITY.—Hawaiian Islands: Maui: Haleakala.¹

440. DIMEROGONUS KOEBELEI Silvestri.

Fauna Hawaiiensis, 1904, 3, p. 338, pl. 12, fig. 63-65.¹LOCALITY.—Hawaiian Islands: Maui: Haleakala.¹

EUMASTIGONUS, gen. nov.

Differs from *Dimerogonus* in having the first legs of the male with strongly developed claws and otherwise also similar to the succeeding pairs. Third joint of legs not spined. Posterior gonopods two-jointed as in *Dimerogonus*. Anterior median plate well developed. Anterior piece of first gonopods at distal end with a finger-like inner process as in *Dimerogonus* and an outer lobe bearing a series of stout spines or pectinae or not.

GENOTYPE.—*E. kaorinus*, sp. nov.

441. EUMASTIGONUS KAORINUS, sp. nov.

TYPE.—M. C. Z. 4,867. PARATYPE.—M. C. Z. 4,868. New Zealand: Kaori Forest, near Swainson (W. M. Wheeler).

The anterior median plate of the male gonopods broad; anterior border broadly and deeply excavated; proximal end on each side extended out across base of gonopod. Distomesal process of anterior or coxal piece of first gonopods in ventral view a little enlarged distad, rounded, slender; membranous lobe broad; pectinate lobe below level of mesodistal process, the spines stout and blade-like, not reaching to level of tip of mesodistal process; telopodite with a series of setae across its distal end. Distal joint of posterior gonopods angled on mesal side near middle of length, distal portion slender and acutely pointed.

Eyes transversely narrowly elliptic, each composed of numerous ocelli in four or five long transverse series. Antennae short, scarcely widening distad, but each joint separately, strongly clavate. A sulcus across vertex; frontal region evenly convex, smooth and shining.

Cardo of mandibles of male strongly evenly extended caudad and ventrad.

Lower margin of collum rising in a straight and very oblique line from the somewhat rounded caudolateral corner to the level of the eye, making lower end of plate angular; margined from caudal angle to level of eye, with a second sulcus paralleling the margining one at a considerable distance from the margin.

Anal scutum exceeded by the valves, caudally rounded. Valves not margined.

Prozonites and anterior portion of metazonites dark, blackish above but down the sides becoming paler from the inclusion of numerous light areas; a light spot or aggregation of spots above pore on each side and a narrow light transverse stripe across dorsum just behind covered part of prozonite. Body banded with light rings, a light annulus embracing each metazonite excepting its anterior portion. Anal scutum almost solidly black; valves dusky over a paler background. Vertex of head covered with a network of dark lines over a light ground; a black area between eyes and antennae pointed below and enclosing a large, light, elliptic spot mesad of each antenna and a much smaller circular dot mesodorsad of each large one; lower part of face again light. Legs somewhat ferruginofulvous.

Number of segments, fifty to fifty-five.

Width (male), 2 mm.

442. EUMASTIGONUS FASCIATUS, sp. nov.

TYPE.—M. C. Z. 4,870. PARATYPES.—M. C. Z. 4,871. New Zealand: Taumarunni (W. M. Wheeler).

Readily distinguished from *E. kaorinus* in having a continuous narrow longitudinal stripe immediately above level of pores and embracing the latter in its lower border. The color-pattern otherwise similar, the anal scutum being black with the valves pale; head rather lighter but color-markings similar; legs and antennae fulvous; the light annuli of segments much more pronounced.

In the male gonopods the anterior median plate is very similar in form, but is proportionately longer and narrower. Coxal piece of anterior gonopods proportionately rather less elongate and less incurved on ectal side proximad of the ectodistal lobe; the latter bulging less laterad but extending decidedly farther distad and not pectinate, finger-shaped like the mesodistal lobe but less slender.

Number of segments, thirty-nine to forty-two as against fifty to fifty-five in *E. kaorinus*.

Width (female), to 2.2 mm.

443. *EUMASTIGONUS DISTINCTIOR*, sp. nov.

TYPE.—M. C. Z. 4,872. PARATYPE.—M. C. Z. 4,873. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

Very similar in coloration to *E. kaorinus* but the light markings more pronounced; a row of light spots along the lower part of each side.

Readily distinguished from the two other species in the character of the male gonopods. The anterior median plate is narrower than in either of the other species and at the distal end is straight or scarcely crenately notched, not deeply angularly excavated. The coxal piece of the anterior gonopods lacks the pectinae on the outer distal lobe as does *E. fasciatus*; but this ectal process is much longer, exceeding the inner process, distally rounded. The inner distal process differs in being curved strongly ectad, the tip slenderly acute and bending back mesad.

Anal valves more obviously margined; two short submarginal setae on each one.

Number of segments, forty-one to forty-nine.

Width (female), to 2.4 mm.

444. *EUMASTIGONUS PARVUS*, sp. nov.

TYPE.—M. C. Z. 4,874. PARATYPE.—M. C. Z. 4,875. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

Darker than the three preceding species and lacking distinct annulations of lighter color, the prozonites each in the caudal part of its overlapped portion with a narrow fulvous stripe across dorsum and a similar one down each side showing through the colorless overlapping zone of the preceding metazonite. Along each side of the body at the level of the pores a series of large light ferruginous spots and lower down toward the legs a series of smaller spots that fade out near middle of length. Collum, excepting marginally, vertex and lower part of head light ferruginous weakly darkened with a network of fine, largely obscure, dark lines. Anal scutum black, its basal border on each side and commonly the preceding metazonite light; anal valves either dusky ferruginous or nearly solid black.

Agrees with *E. kaorinus* and differs from *fasciatus* and *distinctior* in having a series of stout spines or pectinae at distoectal corner of coxal piece of the anterior gonopods. Unlike *E. kaorinus*, these pectinae not borne on a distinct shoulder or lobe, there being a small distoectal process apart from the pectinae; spines much smaller than in *kaorinus* and not exceeding the series of spines across apex of telopodite in size. The inner distal process distally rounded, only slightly curved. Clearly differing from *E. kaorinus* also in the form of the anterior median plate, this in the present species being distally rounded and mesally only vaguely indented, not deeply angularly excavated.

Number of segments, thirty-six to forty-two.

Diameter (male), 2.1 mm. Short.

445. EUMASTIGONUS MAIOR, sp. nov.

TYPE.—M. C. Z. 4,876. New Zealand: Day's Bay, near Wellington (W. M. Wheeler).

Having the usual pattern of coloration as exhibited in *E. kaorinus* and *distinctior*. The light annuli ferruginous except a narrow marginal stripe across dorsum which is fulvous. A series of small light spots just above the pores and below toward ventral surface a series of larger light spots with above each on prozonite a narrow vertical light stripe. Collum mostly ferruginous with vague network of dark lines; anterior border black, the black band widening toward middle where it is connected by two black lines with a triangular black caudal area embracing two light spots. Head with usual color-pattern. Anal scutum black, valves light. Preceding segment also light. Legs light ferruginous.

Most readily differentiated by means of the sculpturing of the tergites. On these the metazonites are closely longitudinally striate below, the striae on passing to the prozonite curving and running directly dorsad, the prozonites thus covered below with vertical, slightly wavy, and mostly continuous lines which on the anterior part are conspicuous up to the level of the pores. In the anterior region of the body the striae of the prozonites become more oblique and shorter.

Eyes rather small. Composed of only three transverse series of ocelli.

Collum smooth and shining. Narrowly margined below as usual. With a stria or sulcus nearly longitudinal, not paralleling the antero-

lateral margin as more usually the case; a short stria below it and one or two short ones above.

Anal valves not at all margined.

Number of segments, fifty-five.

Width (female), 3 mm.

EUETHOGONUS, gen. nov.

Differing from *Amastigogonus* Brölemann and *Dimerogonus* Attems in having the first pair of legs of the male armed with a distinct claw and the proximal joint not especially enlarged. In gonopods the characters are most like those of *Amastigogonus*. No distinct median plate; the tracheal stalks meeting directly at the middle line. Anterior gonopods with two long joints; a pseudoflagellum, this lying between these joints in a cavity which they form, rising to near the distal end of the gonopod but not protruding, slender and needle-like, not ribbon-shaped as it is in *Amastigogonus*. The posterior gonopods one-jointed as in the latter genus. Mandible with eight pectinate lamellae.

GENOTYPE.—*E. hardyi*, sp. nov.

446. EUETHOGONUS HARDYI, sp. nov.

TYPE.—M. C. Z. 4,S17. PARATYPES.—M. C. Z. 4,S18. Tasmania (G. H. Hardy).

General color black, in the anterior region the prozonites often paler, particularly down the sides, from the inclusion of numerous light dots. There is also a tendency for the caudal border of the metazonites to be lighter, especially in a stripe down each side. Legs ferruginous. Antennae blackish.

Sulcus across vertex of head distinct. Eyes transversely elongate, the mesal end angular, separated by less than twice their diameter. Ocelli in four transverse rows; *e. g.*, 9, 8, 7, 6. Setigerous foveolae eight. Antennae reaching to the fourth segment.

Collum moderately narrowed below, the anterior angle widely rounded. Margined below and up the anterior border to the level of the eye. Above the lower margining sulcus are two deep longitudinal sulci of which the upper one curves up dorsad at its anterior end.

The transverse suture of segments strongly marked throughout. Pore well removed caudad from the suture which remains straight or but slightly widely curved opposite it. The covered part of the prozonites densely marked with fine transverse striolations which are closely beaded with shining granules; these striolations also on the anterior part of the exposed region of the prozonites above, extending back farther on the sides; on lower part of prozonites

some coarser striae arising obliquely or almost directly transversely from the anterior ends of longitudinal striae crossing the metazonites.

Anal scutum covering the valves above; smooth. Valves smooth and shining, not at all margined.

The posterior gonopods distinct from each other, with no median plate; undivided, each in the form of a plate with edges bent more or less caudad and so producing a caudal groove; from cetal edge arises a digitiform process as in *Amastigogonus tasmanianus* but lower down and not extending distad as far as the tip of the main branch; the latter distally with several long setae. In the anterior gonopods the inner ends of the tracheal stalks meet firmly, being sutured, at the mesal line, the ends there expanded and forming a broadly triangular plate. In front of this lies a very small piece apparently representing the true median plate which appears to be fused with the gonopods. The two branches of the anterior gonopods are equal in length and enclose between them a cavity in which the slender pseudoflagellum lies.

Number of segments, sixty-one and near that number.

Diameter of male, 3.2 mm.; of female to 4.2 mm.

447. *ATELOMASTIX ALBANYENSIS* Attens. *

Fauna südw. Austr., 1911, **3**, p. 194, fig. 73-80.¹

LOCALITY.—W. Australia: Albany.¹

448. *ATELOMASTIX NIGRESCENS* Attens.

Fauna südw. Austr., 1911, **3**, p. 195, fig. 81-84.¹

LOCALITY.—W. Australia: Jarrahdale, Lunenberg.¹

449. *SAMICIUS DECORATUS* Attens.

Fauna südw. Austr., 1911, **3**, p. 198, fig. 85-91.¹

LOCALITY.—W. Australia: Torbay.¹

450. *AMASTIGOGONUS TASMANIANUS* Brölemann.

Records Austr. mus., 1913, **10**, p. 153, fig. 32-37.¹

LOCALITY.—Tasmania.¹

NESOCAMBALA, gen. nov.

Belonging to the group with flagellum-bearing gonopods (*Mastigocambalinae*). With five labral teeth as in *Agastrophus* and *Hypo-*

cambala. Ocelli numerous and distinct. No vertigial setigerous foveolae. Antennae long, strongly clavate. Mandibles with six (or seven) pectinate lamellae. Segments deeply constricted as in *Nannolene*. Segments without striae or keels above, being essentially smooth; strongly striate beneath. Among other such genera of this group standing apart in having the repugnatorial pores begin on the fifth segment. First legs of male, excepting for smaller size, normal, six-jointed; with claws. In the anterior male gonopods a single median plate; a telopodite distinctly separated from the coxal division.

GENOTYPE.—*N. fijiana*, sp. nov.

451. NESOCAMBALA FIJIANA, sp. nov.

TYPE.—M. C. Z. 4,827. PARATYPES.—M. C. Z. 4,828. Fijis: Nadarivatu (W. M. Mann).

The anterior gonopods flattened antero-caudally; near middle on ectal side a distally directed, finger-like process curved mesad at its distal end, separated by a distinct suture; adjacent to it on the mesal side and separated off from the basal part by an oblique suture is a broader flattened piece which bends back caudad distally showing a furrow mesad of its ectal angle and a longer pointed process or finger from its mesodistal corner. Anterior ventral plate in a single piece which is extended distad as a slender, distally rounded process. The posterior gonopods much shorter than the anterior, the latter curving back over them; distally rounded; flagellum terminal.

The general color of the body black with the venter and lower part of sides fulvous, the light color rising higher on the metazonites than on the prozonites; frequently two longitudinal dorsal series of fulvous to somewhat ferruginous spots, the outline of the spots irregular, two on each metazonite with often a few much smaller light dots below each one. The collum lighter from numerous light areas separated by a network of dark as are also several succeeding tergites. Anal segment fulvous, the scutum darker over its caudal portion. Head fulvous below and on the sides, areolated over vertex similarly to collum and the clypeal region mottled. Antennae black excepting the seventh article. Legs fulvous.

Each eye-patch subrhomboidal. Ocelli mostly in four or five series; e. g., 4, 4, 4, 4 to 4, 4, 4, 4, 3. A lightly impressed sulcus across vertex of head. Antennae with fifth and sixth articles thickest, the fifth strongly clavate, the sixth more nearly cylindrical.

Collum with lower margin evenly rounded, not extending as far ventrad as the second tergite. Margin separated off by a furrow below and up the anterior border toward the dorsum.

The ordinary segments deeply constricted, the metazonite, however, rising much higher than the prozonite. Pore located well caudad of the encircling furrow. Somites smooth above; longitudinally striate across both zones ventrally and a little distance up the sides. Metazonites normally clothed with numerous fine, suberect hairs.

Anal scutum long, rounded or nearly straight caudally, exceeded by the valves. Valves not margined.

Number of segments from forty-eight to fifty-eight.

Length (female), to 25 mm. Greatest width, up to 1.2 mm. The males smaller. Body constricted several segments caudad of head, then enlarging to behind middle and then again narrowing caudad.

452. NESOCAMBALA LINEATA, sp. nov.

TYPE.—M. C. Z. 4,829. PARATYPES.—M. C. Z. 4,830, 4,831, 4,832, 4,833. Fijis: Lasema, Waiyanitu, Vanua Ava, Lomati (W. M. Mann).

A smaller species than *N. fijiana* from which it may be distinguished at once in having a broad, fulvous to ferruginous stripe along the dorsum, a stripe along each side alone remaining black as the venter and lower part of the sides are light colored like the middorsal stripe. Anal segment black or mostly so. Legs irregularly dusky over a fulvous background. Antennae dark, the seventh article not abruptly paler, fulvous, as it is in *N. fijiana*.

Antennal articles shorter; the fifth more strongly constricted at base.

Collum more narrowed below, the lower end set off as a narrow rounded process. The segments constricted deeply as in the genotype. Both prozonites and metazonites subdensely clothed with hairs which are shorter and straighter than in the other species. Striae obscure.

Number of segments, forty-four to fifty-two.

Length (female), only to 14 mm.

453. NESOCAMBALA SCABRIUSCULA, sp. nov.

TYPE.—M. C. Z. 4,834. Fijis: Waiyanitu (W. M. Mann).

In size smaller than *N. fijiana*, being about the same as *lineata*. Superficially distinguishable from the other species in having a narrow

light line along each side of the dorsum, this anteriorly in part breaking up into spots suggesting the arrangement in *N. fijiana*; these lines and the ventral surface and lower part of sides ferruginous. Anal segment light excepting the caudal portion of the tergite and the entire ventral scale which are black. Legs in part dusky over a fulvous background. The antennae similar, being thus obviously lighter than in *N. fijiana* and *lineata*.

The antennae are most nearly like those of *N. lineata*, the fifth joint, *e. g.*, being similarly short with strongly constricted base, above which the article expands abruptly.

A conspicuous characteristic of this species is in the rather finely and evenly but strongly roughened metazonites, especially dorsally, the coarser, low tuberculation or granulation here contrasting with the much finer grained even surface of the prozonites. Hairs numerous, short and straight.

Number of segments, fifty.

Length (female), 13 or 14 mm.

454. NESOCAMBALA SOLOMONICA, sp. nov.

TYPE.—M. C. Z. 4,955. PARATYPES.—M. C. Z. 4,956. Solomons: Wainoni Bay (W. M. Mann).

Resembling *N. fijiana*; but, aside from being an obviously more robust species, it differs in wholly lacking any series of light spots above and in showing a distinct annulation of the somites, the border of metazonite and the underlying part of prozonite being commonly light in contrast with the blackish remaining portion. Legs fulvous. Antennae dark.

Eyes subrhomboidal; ocelli in four or five oblique series, *e. g.*, 3, 4, 4, 4, 3. Fifth article of antennae strongly constricted at base, the sixth cylindrical. A sulcus across caudal portion of vertex, short but distinct.

Collum equalling or extending a little below lower edge of second tergite.

Segments constricted as usual, with metazonites higher than prozonites, but constriction not so sharp or deep as in *N. fijiana*. Striae rising part way up the side on a few anterior segments but on most confined to ventral surface and few though distinct, these crossing metazonite and curving dorsad on caudal edge of constriction but not crossing prozonite. Setae much shorter than in *N. fijiana*.

Anal tergite caudally rounded, much exceeded by the valves.

Number of segments, 50-55.

Diameter (female), to 2 mm.

455. *NESOCAMBALA PERSONATA*, sp. nov.

TYPE.—M. C. Z. 4,957. PARATYPES.—M. C. Z. 4,959. Solomons: Fulakora, Wainoni Bay (W. M. Mann).

A species with strongly marked color-character. The head and first four segments orange colored in sharp contrast with the remaining portion of body which is dark. Segments darkest in a stripe across metazonite in front of its paler caudal border, this stripe narrowing to an acute point down each side, a narrower dark process commonly also extending down prozonite; lower surface of segments pale. Anal tergite and valves and sometimes also the preceding segment light, typically orange like the anterior end. Antennae dark. Legs dusky over a light background.

Ocelli forming a compact black patch on each side, small, commonly in five series, *e. g.*, 4, 4, 4, 4, 3. Sixth article of antennae long, cylindrical to the abruptly narrower base; fifth article constricted proximally as usual.

Collum exceeded below by the second tergite.

Segments strongly constricted as usual, the constricting furrow flat at bottom and crossed longitudinally by numerous exceedingly fine, beaded impressed lines. Striate beneath and half way up each side, the striae crossing metazonite and on prozonite bending dorsad and uniting with succeeding stria in each case. A marked feature is the dense clothing of segments with fine short hairs.

Number of segments from forty-five (male) to fifty-nine (female).

Length (female), to about 20 mm.; width, 1.2 mm. Male more slender.

456. *JULOMORPHA FLABELLIGERA* Silvestri.

Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 11, pl. 2, fig. 56-57.¹

LOCALITY.—Queensland: Cayndah.¹

457. *JULOMORPHA PODENZANAE* Silvestri.

Bull. Soc. ent. Ital., 1897, 29, p. 227.¹

LOCALITY.—Queensland: Cairns.¹

458. *JULOMORPHA PALLIPES* Silvestri.Bull. Soc. ent. Ital., 1897, **29**, p. 228.¹LOCALITY.— Queensland: Cairns.¹459. *HYPOCAMBALA HELLERI* Silvestri.Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 11, pl. 2, fig. 59–62.¹LOCALITY.— South Celebes: Bantimurung.¹460. *AGASTROPHUS ORIENTALIS* Carl.Rev. Suisse zool., 1912, **20**, p. 156, fig. 13, 14.¹*Agastrophus orientalis* Attems, Bijdr. dierk., 1915, **20**, p. 8.²LOCALITY.— Celebes: Masarang.¹ W. Ceram: Honitetu.²461. *TRICHOCAMBALA SOLLASI* Pocock.Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 325.¹LOCALITY.— Ellice Islands: Funafuti.¹462. *PODYKIPUS COLLINUS* Attems.Fauna süd. Austr., 1911, **3**, p. 184, fig. 51–57.¹LOCALITIES.— W. Australia: Subiaca, East Fremantle, Gooseberry Hill.¹463. *PODYKIPUS LEPTOIULOIDES* Attems.Fauna süd. Austr., 1911, **3**, p. 186, fig. 58–65.¹LOCALITIES.— W. Australia: Lion Mill, Mundaring Weir, Jarrahdale, Collie, Pickering Brook.¹464. *DINOCAMBALA INGENS* Attems.Fauna süd. Austr., 1911, **3**, p. 190, fig. 66–72.¹LOCALITY.— W. Australia: Gooseberry Hill.¹

TRACHIULIDAE.

465. *CAMBALOPSIS NORDQUISTI* Attems.Archiv zool., 1909, **5**, no. 3, p. 71, fig. xxi.¹*Cambalopsis nordquisti* Carl, Rev. Suisse zool., 1912, **20**, p. 158, pl. 51, fig. 19-21.LOCALITY.—Celebes: Pare-Pare.¹

SPIROSTREPTOIDEA.

HARPAGOPHORIDAE.

466. *THYROPYGUS JAVANUS* (Brandt).*Spirostreptus javanus* Brandt, Recueil de mém., 1841, p. 92.*Thyropygus javanus* Attems, Afrik. Spirostrept., 1914, p. 168.¹LOCALITIES.—Amboina, Tjikora, Taugeraug.¹467. *RHYNCHOPROCTUS PROBOSCIDEUS* Pocock.Weber's Reise, 1894, **3**, p. 386, pl. 21, fig. 9.*Rhynchoproctus minor* Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 2.¹*Rhynchoproctus longipes* Silvestri, *Op. cit.*, p. 2.²*Rhynchoproctus proboscideus* Carl, Rev. Suisse zool., 1912, **20**, p. 159.³Attems, Afrik. Spirostrept, 1914, p. 171.⁴LOCALITIES.—Celebes: Barabatuwa, Kau, Maros, Duri, Ussu, Towuti Lake, Roembi-Mengkoka, Gulf of Boni, Takala Mts., Posso, Mapane, Buol,³ Minahassa,¹ Patalung State.⁴ Aru Islands.²468. *SPIROSTREPTUS* (?) *LEPTURUS* Silvestri.Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 4.¹LOCALITY.—Fijis: Viti.¹This and the following species listed under *Spirostreptus* cannot be placed in their proper genera or indeed in some cases in their orders from the published accounts.

469. SPIROSTREPTUS (?) STRIATUS Hutton.

Jules (Spirostreptus) striatus Hutton, Ann. mag. nat. hist., 1897, ser. 4, 20, p. 115.¹

LOCALITY.—New Zealand.¹

470. SPIROSTREPTUS (?) MARITIMUS L. Koch.

Verh. Zool. bot. gesellsch., Wien, 1867, 17, p. 244.¹

LOCALITY.—Queensland: Brisbane.¹

471. SPIROSTREPTUS (?) IMPRESSOPUNCTATUS L. Koch.

Verh. Zool. bot. gesellsch Wien, 1867, 17, p. 243.¹

LOCALITY.—Queensland: Brisbane.¹

SPIROBOLOIDEA.

SPIROBOLIDAE.

472. RHINOCRICUS PERDITUS, sp. nov.

TYPE.—M. C. Z. 4,862. Queensland: Enoggera, near Brisbane (W. M. Wheeler).

The color of the body olive-black without annuli or other markings, or a narrow reddish annulus on caudal border of some segments. Legs and antennae bright ferruginous.

Labral pores 2+2. Eyes transversely subelliptic, twice the length or more apart. Sensory cones of antennae four in number.

Collum of usual general form. With numerous fine puncta and short fine impressed lines extending in various directions but those at extreme caudal border mostly longitudinal.

Second tergite extending much below the level of the collum.

Sutures of segments distinct below pores but above gradually fading out. Striae of metazonites ventrally as usual; those on prozonites beneath and laterally oblique, one at least forming a continuous transverse sulcus across dorsum from pore to pore in anterior region of body at least. Covered part of prozonite closely marked with fine wavy striolations as is frequent. Segments marked above with numerous puncta and short impressed lines which are weak and show only under magnification. Scobina present back to the thirty-first segment.

Anal scutum not equalling the valves. The latter moderately compressed at inner borders ectad of which they are roughened.

Feet of male with tarsal pads.

Number of segments, fifty-five.

Length (male), 62 mm.; width, 5.6 mm.

Recognizable among related Australian forms in the different characters of the male gonopods. The ventral branch of the posterior gonopods is long, curving back along the sternite of the segment to its caudal end, expanding clavately distad as usual in *Rhinoericus*, the distodorsal angle acute, the other rounded. Dorsal or lesser branch slender, scarcely surpassing the middle of the other branch.

473. *CLADISOCRICUS FALCATUS* (Silvestri).

Rhinoericus falcatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 6, pl. 1, fig. 21, 22.¹

LOCALITY.—Queensland: Gayndah.¹

474. *CLADISOCRICUS SCOBINULA* Brölemann.

Dinematocricus (Cladisocricus) falcatus scobinula Brölemann, Records Austr. mus., 1913, 10, p. 125, fig. 30, 31, pl. 16, fig. 39-44.¹

LOCALITY.—Queensland: Gayndah.¹

I am unable clearly to understand Brölemann's account as to the localities he attributes to typical *falcatus* and his subspecies *scobinula*. He states (*Op. cit.*, p. 125) that "the Gayndah specimens have been considered as a distinct subspecies for which the name of *scobinula* subsp. nov. is proposed" and on p. 128 that "There is, therefore, hardly any doubt that the Gayndah specimens belong to at least a subspecies different from the Cairns form." The pertinence of the reference to Cairns is not clear. He may have had typical *falcatus* from that locality, though Silvestri's types were from Gayndah.

475. *CLADISOCRICUS (?) CONSIMILIS* Brölemann.

Dinematocricus (?Cladisocricus) consimilis Brölemann, Records Austr. mus., 1913, 10, p. 128, pl. 16, fig. 45.¹

LOCALITY.—Queensland: Gayndah.¹

476. SALPIDOBOLUS MEYERI (Silvestri).

Rhinocricus meyeri Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 8, pl. 1, fig. 40, 41.¹ Carl, Rev. Suisse zool., 1912, **20**, p. 172.²

LOCALITY.—Celebes: Boliohuto Mt.,¹ Buol,² North Celebes.²

Made the type of *Salpidobolus* (Ann. Mus. civ. Genova, 1898, **38**) without diagnosis of the latter. Because of the remarkable processes on the anterior legs of the male it is tentatively kept apart from *Dinematocricus* with which it agrees in the male gonopods. If the two genera should be united *Salpidobolus* (1898) would have priority over *Dinematocricus* (1913).

477. PROPOROBOLUS BICORNIS (Silvestri).

Rhinocricus bicornis Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 5, pl. 1, fig. 17-19.¹

LOCALITY.—Fiji: Viti.¹

478. PROPOROBOLUS QUINTIPORUS (Attems).

Rhinocricus quintiporus Attems, Abhandl. Senckenb. gesellseh., 1897, **23**, p. 524, pl. 22, fig. 19-21.¹

LOCALITY.—Halmaheira.¹

479. PROPOROBOLUS XANTHOPYGUS (Attems).

Rhinocricus xanthopygus Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 531, pl. 22, fig. 22, 23.¹

LOCALITY.—Halmaheira.¹

480. PROPOROBOLUS PACHYSKELES (Attems).

Rhinocricus pachyskeles Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 528.¹

LOCALITY.—Batjan.¹

481. PROPOROBOLUS SENNAE (Silvestri).

Rhinocricus sennae Silvestri, Bull. Soc. ent. Ital., 1897, **29**, p. 230, fig. 10-12.¹

LOCALITY.—Queensland: Cairns.¹

482. *PROPOROBOLUS ADIPATUS* (Karsch).

Spirobolus adipatus Karsch, Zeitsch. nat., 1881, 54, p. 66.

Rhinocricus gravis Silvestri, Ann. Mus. civ. Genova, 1895, 34, p. 647.¹

Rhinocricus adipatus Attems, Bijdr. dierk., 1915, 20, p. 8, fig. 19-23.²

LOCALITIES.—Dutch New Guinea: Sorong, Andai.¹ Moluccas.²

483. *PROPOROBOLUS BEAUFORTI* (Attems).

Bijdr. dierk., 1915, 20, p. 10, fig. 24-26.¹

LOCALITY.—Waigeu: Beo.¹

484. *ACLADOCRICUS SOLOMONUS*, sp. nov.

TYPE.—M. C. Z. 4,919. PARATYPES.—M. C. Z. 4,920. Solomons: Fulakora (W. M. Mann).

Deep blackish brown or black above level of pores with, in part, lighter caudal bands across somites, while below level of pores the color is a much lighter brown. Legs and antennae light brown to fulvous.

Sulcus of head not interrupted though a little finer in frontal region. Clypeal foveolae 2 + 2. Antennae very short.

Second tergite extending much below level of collum. Collum broadly rounded on each side below, a little straighter in male than in female; a fine longitudinal stria across anterior half at level of eye.

Somites above smooth and non-striate excepting covered part of prozonite which is marked with numerous wavy transverse striae. Suture single, not strongly marked but continuous entirely across dorsum.

Anal tergite a little exceeded by the valves. Mesal borders of valves broadly elevated, compressed.

The median plate of gonopods has the usual sublanceolate distal tongue which is distally acute, the proximal portion triangularly widening dorsad above the tongue, the sides above being somewhat convex though straight adjacent to the tongue. Distal joint of anterior gonopods long and slender, much surpassing the median piece, the coxal piece shorter than median piece and narrowing to an acute point distad. Style of posterior gonopods lying in space between two divisions of anterior gonopods, rising along mesal side of distal division and evenly curving caudad.

Number of segments, forty-five.

Length of male, near 52 mm.; width, 5.5 mm. Length of female, 62 mm.; width, 6.2 mm.

485. *ACLADOCRICUS STYLIFERUS* (Silvestri).

Rhinocricus styliferus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 5, pl. 1, fig. 11-13.¹

LOCALITY.— Celebes: Minahassa.¹

486. *ACLADOCRICUS COGNATUS* (Silvestri).

Rhinocricus cognatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 6, pl. 1, fig. 23-24.¹

LOCALITY.— Celebes: Minahassa.¹

487. *ACLADOCRICUS NEGLECTUS* (Silvestri).

Rhinocricus neglectus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 6, pl. 1, fig. 25, 26.¹

LOCALITY.— Celebes: Minahassa.¹

488. *ACLADOCRICUS FILOSUS* (Silvestri).

Rhinocricus filusus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 9, pl. 2, fig. 52, 53.¹

LOCALITY.— South Celebes: Bantimurung.¹

489. *ACLADOCRICUS SETIGERUS* (Silvestri).

Rhinocricus setigerus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 9, fig. viii, ix.¹

LOCALITY.— Caroline Islands.¹

490. *ACLADOCRICUS MEDIOSTRIATUS* (Silvestri).

Rhinocricus mediotriatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 9, fig. x, xi.¹

LOCALITY.— Sangi Island: Great Sangi.¹

491. *ACLADOCRICUS PYRRHOMOLA* (Attems).

Rhinocricus pyrrhomola Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 527, pl. 24, 25.¹

LOCALITY.— Celebes: Minahassa.¹

This is the type of the genus.

492. ACLADOCRICUS MONTIVAGUS (Carl).

Rhinocricus montivagus Carl, Rev. Suisse zool., 1912, **20**, p. 174.¹

LOCALITY.— Celebes: South Fall of Matiningkette.¹

493. ACLADOCRICUS MACASSARENSIS (Carl).

Rhinocricus macassarensis Carl, Rev. Suisse zool., 1912, **20**, p. 198, fig. 35.¹

LOCALITY.— Celebes: Makassar.¹

494. DINEMATOCRICUS LUGUBRIS (L. Koch).

Spirobolus lugubris L. Koch, Verh. Zool. bot. gesellsch. Wien, 1865, **15**, p. 887.¹

LOCALITY.— Australia.¹

495. DINEMATOCRICUS COERULEOLIMBATUS (Daday).

Spirobolus coeruleolimbatus Daday, Term. fuz., 1891, **14**, p. 177, pl. 7, fig. 6, 7.¹

LOCALITY.— Queensland.¹

496. DINEMATOCRICUS FASCICULATUS (Voges).

Spirobolus fasciculatus Voges, Zeitsch. wiss. zool., 1878, **31**, p. 190.¹

LOCALITY.— Australia.¹

497. DINEMATOCRICUS BREVIPES (Karsch).

Rhinocricus brevipes Karsch, Zeitsch. nat., 1881, **54**, p. 76.¹

LOCALITY.— Australia.¹

498. DINEMATOCRICUS OPULENTUS (Silvestri).

Rhinocricus opulentus Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 650.¹

LOCALITY.— Queensland: Somerset.¹

499. DINEMATOCRICUS CREPIDATUS (Karsch).

Spirobolus (Rhinocricus) crepidatus Karsch, Zeits. nat., 1881, **54**, p. 74.¹

LOCALITY.— Australia.¹

500. DINEMATOCRICUS FENICHELII (Daday).

Spirobolus feniceli Daday, Term. füz., 1893, **16**, p. 102, pl. 4, fig. 1-4.¹

Rhinoericus feniceli Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 648.²

LOCALITY.—New Guinea.^{1, 2} Williams Land.¹

501. DINEMATOCRICUS CAELATUS (Karsch).

Spirobolus caelatus Karsch, Zeitsch. nat., 1881, **34**, p. 67.¹

LOCALITY.—New Guinea: Segaar Bay.¹ ?Bismarck Arch.: New Hanover.¹

502. DINEMATOCRICUS DIVES (Silvestri).

Rhinoericus dives Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 649.¹

LOCALITY.—Dutch New Guinea: Andai.¹

503. DINEMATOCRICUS DIMISSUS (Silvestri).

Rhinoericus dimissus Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 652.¹

LOCALITY.—Dutch New Guinea:¹ Manokwari (T. Barbour).

504. DINEMATOCRICUS DISJUNCTUS Brölemann.

Records Austr. mus., 1913, **10**, p. 134, pl. 17, fig. 53-57.¹

LOCALITY.—New Guinea.¹

505. DINEMATOCRICUS LORIAE (Silvestri).

Rhinoericus loriae Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 650.¹

LOCALITY.—New Guinea: Haveri, Moroka.¹

506. DINEMATOCRICUS VARIABILIS (Silvestri).

Rhinoericus variabilis Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 653.¹

LOCALITY.—Aru Islands: Wokan.¹

507. DINEMATOCRICUS ALBERTISI (Silvestri).

Rhinoericus albertisi Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 652.¹

LOCALITY.—New Guinea: Goram.¹

508. *DINEMATOCRICUS ANALIS* Brölemann.Records Austr. mus., 1913, **10**, p. 131, pl. 17, fig. 49-52.¹LOCALITY.—New Guinea.¹509. *DINEMATOCRICUS FAUCIUM* Brölemann.Records Austr. mus., 1913, **10**, p. 129, pl. 16, fig. 46, pl. 17, fig. 47, 48.¹LOCALITY.—New Guinea.¹510. *DINEMATOCRICUS DETORNATUS* (Karsch).*Spirobolus detornatus* Karsch, Zeitsch. nat., 1881, **54**, p. 57.¹LOCALITIES.—Fijis: Viti Levu.¹511. *DINEMATOCRICUS VOGESI* (Karsch).*Spirobolus vogesi* Karsch, Zeitsch. nat., 1881, **54**, p. 59.¹LOCALITY.—New Hanover.¹512. *DINEMATOCRICUS PUNCTIPLONUS* (Karsch).*Spirobolus punctiplonus* Karsch, Zeitsch. nat., 1881, **54**, p. 61.¹LOCALITY.—Banda.¹ Amboina.¹

Also known from Sumatra.

513. *DINEMATOCRICUS SIGNIFER* (Karsch).*Spirobolus signifera* Karsch, Zeitsch. nat., 1881, **54**, p. 61.¹LOCALITY.—Fijis: Viti Levu.¹514. *DINEMATOCRICUS DECORATUS* (Karsch).*Spirobolus decoratus* Karsch, Zeitsch. nat., 1881, **54**, p. 62.¹ Daday, Term. füz., 1891, **14**, p. 176.²LOCALITY.—Fijis: Viti Levu,¹ Fidschi.²515. *DINEMATOCRICUS UNULATUS* (Karsch).*Spirobolus (Rhinoericus) undulatus* Karsch, Zeitsch. nat., 1881, **54**, p. 69.¹LOCALITY.—Fijis: Viti Levu.¹

516. DINEMATOCRICUS CARINATUS (Karsch).

Spirobolus (Rhinocricus) carinatus Karsch, Zeitsch. nat., 1881, **54**, p. 73.¹

LOCALITY.—Fijis: Viti Levu.¹

517. DINEMATOCRICUS CALLOSUS (Karsch).

Spirobolus (Rhinocricus) callosus Karsch, Zeitsch. nat., 1881, **54**, p. 74.¹

LOCALITY.—Pelew Islands.¹

518. DINEMATOCRICUS SCROBICULATUS (Karsch).

Spirobolus (Rhinocricus) scrobiculatus Karsch, Zeitsch. nat. 1881, **54**, p. 75.¹

LOCALITY.—Amboina.¹

519. DINEMATOCRICUS BECCARII (Silvestri).

Rhinocricus beccarii Silvestri, Ann. Mus. civ. Genova, 1895, **34**, p. 651.¹

LOCALITY.—Amboina.¹

520. DINEMATOCRICUS COSTATUS (L. Koch).

Spirobolus costatus L. Koch, Verh. Zool. bot. gesellsch. Wien, 1865, **15**, p. 885.¹
Daday, Term. füz., 1891, **14**, p. 176.²

LOCALITIES.—Fijis:¹ Viti Levu, Fidschi.²

521. DINEMATOCRICUS HOLOSERICUS Brölemann.

Records Austr. mus., 1913, **10**, p. 139, pl. 18, fig. 65-69.¹

LOCALITY.—Fiji.¹

522. DINEMATOCRICUS COLUBRINUS (L. Koch).

Spirobolus colubrinus L. Koch, Verh. Zool. bot. gesellsch. Wien, 1865, **15**, p. 886.¹

LOCALITY.—Fijis.¹

523. DINEMATOCRICUS PICTUS (L. Koch).

Spirobolus pictus L. Koch, Verh. Zool. bot. gesellsch. Wien, 1865, **15**, p. 883.¹

LOCALITY.—Fijis.¹

524. *DINEMATOCRICUS LANCEOLATUS* Brölemann.

Results Austr. mus., 1913, **10**, p. 136, pl. 17, fig. 58, 59, pl. 18, fig. 60-64.¹

LOCALITY.—New Ireland.¹

525. *DINEMATOCRICUS BIINCISUS* (Pocock).

Rhinocricus biincisus Pocock, Willey's Zool. results, 1898, pt. 1, p. 71.¹

LOCALITY.—New Britain.¹

526. *DINEMATOCRICUS GAZELLENSIS* (Pocock).

Rhinocricus gazellensis Pocock, Willey's, Zool. results, 1898, pt. 1, p. 71.¹

LOCALITY.—New Britain.¹

527. *DINEMATOCRICUS FLAVOCOLLARIS* (Pocock).

Rhinocricus flavocollaris Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 140, pl. 9, f. 11, 11a.¹ Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 278.²

LOCALITIES.—Aru Islands:¹ Wammer Island, Dabo, Wangil.²
Kei Islands: Kei-Dulah.²

528. *DINEMATOCRICUS LEUCOPYGUS* Carl.

Rhinocricus leucopygus Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 278, pl. 11, fig. 18.¹

LOCALITIES.—Aru Islands: Wammer Island: Dabo.¹ Kei Islands: Great Kei: Elat.¹

529. *DINEMATOCRICUS* (?) *ANALAUCUS* (Silvestri).

Rhinocricus analaucus Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 4, pl. 1, fig. 10.¹

LOCALITY.—South Celebes: Bantimurung.¹

530. *DINEMATOCRICUS MICROPYGUS* (Silvestri).

Rhinocricus micropygus Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 5, pl. 1, fig. 14-16.¹

LOCALITY.—Fijis: Viti.¹

531. DINEMATOCRICUS (?) EXCAVATUS (Silvestri).

Rhinocricus excavatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 6, pl. 1, fig. 20.¹

LOCALITY.—Fijis: Viti.¹

Only the female known.

532. DINEMATOCRICUS ANOMALUS (Silvestri).

Rhinocricus anomalus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 7, pl. 1, fig. 27-30.¹

LOCALITY.—Celebes: Minahassa.¹

533. DINEMATOCRICUS OAPYGUS, nom. nov.

Rhinocricus xanthopygus Silvestri (non Attems), Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 6, pl. 1, fig. 20.¹

LOCALITY.—Celebes: Minahassa.¹

534. DINEMATOCRICUS (?) SUBMISSUS (Silvestri).

Rhinocricus submissus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 7, pl. 1, fig. 39.¹

LOCALITY.—Aru Islands.¹

Only the female known.

535. DINEMATOCRICUS (?) RUBROMARGINATUS (Silvestri).

Rhinocricus rubromarginatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 8, pl. 1, figs. 38, 39.¹

LOCALITY.—Aru Islands.¹

536. DINEMATOCRICUS HETEROPUS (Silvestri).

Rhinocricus heteropus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 8, pl. 2, fig. 47-51.¹

LOCALITY.—Celebes.¹

537. DINEMATOCRICUS (?) HAASEI (Silvestri).

Rhinocricus haasei Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 10, fig. 12, 13.¹

LOCALITY.—Celebes: Minahassa.¹

Only the female known.

538. *DINEMATOCRICUS* (?) *ELONGATUS* (Silvestri).

Rhinocricus elongatus Silvestri, Abhandl. Mus. Dresden, 1897, 6, pt. 9, p. 10, fig. 14.¹

LOCALITY.—Celebes: Minalhassa.¹
Only the female known.

539. *DINEMATOCRICUS* *COMPACTILIS* (Attems).

Rhinocricus compactilis Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 523.¹

LOCALITY.—Halmaheira.¹ Gani. Patani (Thomas Barbour).

540. *DINEMATOCRICUS* *VIRGATUS* (Attems).

Rhinocricus virgatus Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 526, pl. 22, fig. 27, 28.¹ Carl, Rev. Suisse zool., 1912, 20, p. 174.²

LOCALITIES.—Celebes: Minahassa,¹ Tomohon, Ruruka, Dunogathal.²

541. *DINEMATOCRICUS* (?) *JUCUNDUS* (Attems).

Rhinocricus jucundus Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 529.¹

LOCALITIES.—Ternate.¹ Celebes: Donggala.¹
Mature male not yet known.

542. *DINEMATOCRICUS* (?) *XYSTUS* (Attems).

Rhinocricus xystus Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 530.¹

LOCALITY.—Halmaheira. Patani.¹
Male not known.

543. *DINEMATOCRICUS* (?) *LAMPROMERUS* (Attems).

Rhinocricus lampromerus Attems, Abhandl. Senckenb. gesellsch., 1897, 23, p. 532.¹

LOCALITY.—Halmaheira.¹

544. *DINEMATOCRICUS* *CENTRALIS* (Carl).

Rhinocricus centralis Carl, Rev. Suisse zool., 1912, 20, p. 176, fig. 17.¹

LOCALITY.—Celebes: Matanna Lake, Ussu, Gulf of Boni.¹

544a. DINEMATOCRICUS CENTRALIS var. SPECTABILIS Carl.

Rhinocricus centralis var. *spectabilis* Carl, Rev. Suisse zool., 1912, 20, p. 178.¹

LOCALITY.— Celebes: Roembi-Mengkoka.¹

544b. DINEMATOCRICUS CENTRALIS var. MINOR (Carl).

Rhinocricus centralis var. *minor* Carl, Rev. Suisse zool., 1912, 20, p. 179.¹

LOCALITY.— Celebes: Ussu.¹

545. DINEMATOCRICUS PENINSULARIS (Carl).

Rhinocricus peninsularis Carl, Rev. Suisse zool., 1912, 20, p. 179, fig. 18.¹

LOCALITY.— Celebes: Roembi-Mengkoka.¹

545a. DINEMATOCRICUS PENINSULARIS var. EXPULSUS (Carl).

Rhinocricus peninsularis var. *expulsus* Carl, Rev. Suisse zool., 1912, 20, p. 181.¹

LOCALITY.— Kabaena Island, near Celebes.¹

546. DINEMATOCRICUS FULVOTAENIATUS (Carl).

Rhinocricus fulvotaeniatus Carl, Rev. Suisse zool., 1912, 20, p. 181, fig. 19–21.¹

LOCALITY.— Celebes: Manipi.¹

547. DINEMATOCRICUS LATERALIS (Carl).

Rhinocricus lateralis Carl, Rev. Suisse zool., 1912, 20, p. 183, fig. 22.¹

LOCALITY.— Celebes: Boeton.¹

547a. DINEMATOCRICUS LATERALIS var. ATRATUS (Carl).

Rhinocricus lateralis var. *atratus* Carl, Rev. Suisse zool., 1912, 20, p. 185.¹

LOCALITY.— Celebes: Roembi-Mengkoka.¹

548. DINEMATOCRICUS MOENENSIS (Carl).

Rhinocricus moenensis Carl, Rev. Suisse zool., 1912, 20, p. 185.¹

LOCALITY.— Celebes: Moena Island.¹

549. *DINEMATOCRICUS RIPARIENSIS* (Carl).*Rhinocricus ripariensis* Carl, Rev. Suisse zool., 1912, **20**, p. 186, fig. 23.¹LOCALITY.—Celebes: Posso Lake, Mapane.¹550. *DINEMATOCRICUS GORONTALENSIS* (Carl).*Rhinocricus gorontalensis* Carl, Rev. Suisse zool., 1912, **20**, p. 188, fig. 24.¹LOCALITY.—Celebes: Gorontalo.¹551. *DINEMATOCRICUS ANNULIPES* (Carl).*Rhinocricus annulipes* Carl, Rev. Suisse zool., 1912, **20**, p. 189, fig. 25-27.¹LOCALITY.—Celebes: Buol.¹552. *DINEMATOCRICUS* (?) *MULTISTRIATUS* (Carl).*Rhinocricus multistriatus* Carl, Rev. Suisse zool., 1912, **20**, p. 192.¹LOCALITY.—Celebes: Buol.¹

Only the female known.

553. *DINEMATOCRICUS TRANSVERSEZONATUS* (Carl).*Rhinocricus transversezonatus* Carl, Rev. Suisse zool., 1912, **20**, p. 193, fig. 28-31.¹LOCALITY.—Celebes: Mapane, Gulf of Tomini.¹554. *DINEMATOCRICUS PTHISCUS* Carl.*Rhinocricus pthiscus* Carl, Rev. Suisse zool., 1912, **20**, p. 196, fig. 33, 34.¹LOCALITY.—Celebes: Donggala on Palos Bay.¹555. *DINEMATOCRICUS WEBERI* (Pocock).*Rhinocricus weberi* Pocock, Weber's Reise, 1894, **3**, p. 391, pl. 22, fig. 22-22c.¹LOCALITY.—Celebes: Luwu.¹556. *DINEMATOCRICUS SEMICINCTUS* (Pocock).*Rhinocricus semicinctus* Pocock, Weber's Reise, 1894, **3**, p. 392, pl. 22, fig. 23.¹LOCALITY.—Flores: Bari.¹

557. *DINEMATOCRICUS XANTHOZONUS* (Pocock).

Rhinocricus xanthozonus Pocock, Weber's Reise, 1894, **3**, p. 393, pl. 22, fig. 24.¹

LOCALITY.—Flores: Maumerie.¹

558. *RHINOCRICUS BRACHYPROCTUS* (Pocock).

Rhinocricus brachyproctus Pocock, Weber's Reise, 1894, **3**, p. 393, pl. 22, fig. 25.¹

LOCALITY.—Saleyer Island.¹

559.—*DINEMATOCRICUS EUMELANUS* (Pocock).

Rhinocricus eumelanus Pocock, Weber's Reise, 1894, **3**, p. 394, pl. 22, fig. 26.¹

LOCALITY.—Celebes: Bira.¹

560.—*DINEMATOCRICUS HICKSONI* (Pocock).

Rhinocricus hicksoni Pocock, Weber's Reise, 1894, **3**, p. 394.¹

LOCALITY.—Celebes.¹

561. *DINEMATOCRICUS GRANTI* (Hirst).

Rhinocricus granti Hirst, Trans. Zool. soc. London, 1914, **20**, p. 331, fig. 18, a, b.¹

LOCALITY.—Dutch New Guinea: Mimika River.¹

562. *DINEMATOCRICUS CHALLENGERI* (Pocock).

Spirobolus challengeri Pocock, Ann. mag. nat. hist., 1893, ser. 6, **11**, p. 139, pl. 9, fig. 10–10c.¹

Rhinocricus rubro-maculatus Silvestri, Abhandl. Mus. Dresden, 1897, **6**, pt. 9, p. 7, pl. 1, fig. 33–36.²

Rhinocricus challengeri Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 278.³

LOCALITIES.—Aru Islands.² Kei Islands: Kei-Dulah.^{1, 3}

563. *DINEMATOCRICUS CINCTIPES* (Butler).

Spirobolus cinctipes Butler, Proc. Zool. soc. London, 1877, p. 283.¹

LOCALITY.—Union Islands: Atafu (Duke of York Island).¹

564. *DINEMATOCRICUS FURCATUS* (Silvestri).

Rhinocricus fuscatus Silvestri, Term. füz., 1899, **22**, p. 209, pl. 12, fig. 27–29.¹

LOCALITY.—New Guinea: Astrolabe Bay, Erima.¹

565. *DINEMATOCRICUS PHILISTIUS* Attems.Bijdr. dierk., 1915, 20, p. 11, fig. 19-21.¹LOCALITY.—Dutch New Guinea. Waigeu. Ceram: Honitetu.¹566. *DINEMATOCRICUS* (?) *DOREYANUS* (Gervais).*Spirobolus doreyanus* Gervais, Insect. Apt., 1847, 4, p. 174.¹LOCALITY.—New Guinea.¹567. *DINEMATOCRICUS SINUATULUS*, sp. nov.

TYPE.—M. C. Z. 4,801. PARATYPES.—M. C. Z. 4,802. Queensland: Cooktown (A. G. Mayer).

Black, the segments caudally narrowly bordered with ferruginous. Legs and antennae pale ferruginous.

Sulcus of head widely interrupted in the frontal region. Setigerous foveolae 2 + 2. Antennae short.

Collum well rounded below. Margination in front obscure or absent. Second tergite extending well below collum, not flattened or excavated.

Anal scutum covering the valves above, the latter protruding a little beyond it. Valves a little compressed; no margining sulcus.

Branches of telopodite of posterior gonopods slender as usual but the outer or principal one slightly clavate and truncate at tip; the inner branch much the more slender and shorter, straight, acute, well apart from the other. Basal part of median plate between triangular and semicircular in form, the base line reentrant at middle; distal process about equal in length to basal part, slightly spatulate in form.

Number of segments, forty-two to forty-eight.

Diameter of female, up to 5.5 mm.; of male, up to 3.7 mm. Length of male type, 30 mm.

Distinguished from other known Australian species in having the posterior margins of segments sinuate above the scobina as in various Fijian species, leaving the scobina in some cases freely exposed. Scobina occurring back to the thirty-first segment. Prozonites somewhat depressed. Sutures on most segments obscure dorsally. Exposed part of prozonites smooth excepting for sparse, exceedingly fine and weak puncta and short lines; covered part with wavy fine transverse lines. Metazonites smooth.

568. *DINEMATOCRICUS EXUL*, sp. nov.

TYPE.—M. C. Z. 4,732. PARATYPES.—M. C. Z. 4,733. New Guinea: Djamna (Thomas Barbour).

The general color is deep shining black, often somewhat olivaceous; the covered portion of segments brown with the border more reddish; caudal border red with the extreme margin fulvous. Legs greenish.

Sulcus of head widely interrupted in the frontal region. Foveolae 2 + 2. Antennae not surpassing the second segment.

Collum margined below and in front below level of eyes as usual, failing much of reaching lower level of second tergite.

Covered portion of segments densely finely striate, the striae short, transverse, curving and in some degree anastomosing. Surface above elsewhere smooth and highly polished. Transverse suture or sulcus not present, obscurely indicated in a shallow furrow below. Segments striate beneath and on front region of ring higher up toward the pore. Caudal margins of some of the segments vaguely bisinuate.

Anal scutum surpassing the valves. The latter compressed but margins not sharply set off.

In the gonopods of the male the median plate has the basal region sublunate in form and longer than the distal process, the latter narrowly subtriangular, rounded at the distal end. Prongs of the telopodite of posterior gonopods subequal.

Length, to near 80 mm.; width, 7.6 mm.

A small species readily distinguished in having the anal tergite surpassing the valves, the scobina extending to the thirty fifth segment, and the number of segments only forty-two to forty-four.

569. DINEMATOCRICUS FRATRELLUS, sp. nov.

TYPE.—M. C. Z. 4,762. New Guinea: Manokwari (Thomas Barbour).

Black, with the covered zone of segments more or less testaceous to ferruginous. Legs dark brown.

Sulcus continuous excepting for a short distance in the frontal region. Foveolae 2 + 2.

Second tergite extending much below the collum. Surface of the latter with fine short lines branching in coriarius fashion.

Prozonites of most other segments also with some fine coriarius markings, the metazonites mostly wholly smooth. Suture distinct below but in middle and posterior region obscure in middorsal region. Posterior margins of most segments bisinuate, though not strongly so, over the scobina. Scobina long, occurring back as far as the thirty seventh segment.

Anal segment with coriarius markings. Valves exceeding the tergite; inner borders compressed. In having the valves exceeding the tergite readily distinguished from *D. exul* which the species much resembles in general features; it is a considerably smaller species.

Number of segments forty-eight as against only forty-two to forty-four in *D. exul*.

Length about 52 mm.; width, 5.4 mm.

570. *DINEMATOCRICUS FRANGENS*, sp. nov.

TYPE.—M. C. Z. 4,746. PARATYPE.—M. C. Z. 4,747. Ceram: Wahaai (Thomas Barbour).

The general color is fuscous with the posterior borders of the segments rufescent. Legs and antennae brown to ferruginous. Head typically blackish with clypeal region and an area in frontal region ferruginous.

Sulcus of head widely interrupted in the frontal region. Setigerous foveolae 2 + 2. Antennae very short.

Collum rounded and margined below in the usual manner. The second tergite extending well below it, not excavated.

The surface of anterior segments, like that of the collum, with numerous exceedingly fine impressed points from which obscure fine lines in places may be traced. In the middle and posterior regions the surface without such impressions, smooth and shining. Covered part of prozonite not striate in general. Segments broadly and shallowly depressed about the middle. Segmental sulcus obscure or mostly wholly absent across the dorsum. Segments deeply striate beneath and up to near the pore; in several of the anterior segments, including the sixth or first porigerous, one or more of the uppermost striae curve transversely across the dorsum forming one or two complete deep sulci in front of the ordinary one. Scobina extending to the forty second segment; each consisting of a deeply impressed lunate area followed by the usual series of fine striae.

Caudal part of the anal tergite set off by a sharply impressed transverse sulcus. Caudal angle subacute, not surpassing the valves. Valves with inner borders compressed and elevated; not angled above.

Number of segments fifty-two or fifty-three.

Length (female), near 78 mm.; width, 7 mm.

A species like *D. undulatus* and several other species in having the posterior margins of some of the anterior segments undulate over the scobina of the succeeding segment.

571. *DINEMATOCRICUS AMPHELICTOGON*, sp. nov.

TYPE.—M. C. Z. 4,716. PARATYPES.—M. C. Z. 4,717. Fijis: Nadarivatu (W. M. Mann).

The color of the dorsum above the pores is nearly black, uniform, excepting the head, collum, and succeeding five tergites which are light brown or olive

cast, these tergites being bordered posteriorly with dark. The other segments below the level of the pores also light olive with posterior border dark like dorsum but of a somewhat more brownish cast. Legs dense shining brown. Anal scutum blackish, uniform; valves similar but in the middle region dark olivaceous.

Sulcus of head complete. Below level of antennae on each side a series of oblique striae, the striae of upper region fewer and much weaker. Surface in general shining.

Collum of usual form, much exceeded below by the second tergite which is not excavated. The plate is margined only below, the margining sulcus not at all extending about the anterior corner. Surface very finely punctate among the coriarius markings.

Fourth, fifth, and sixth plates with two transverse sulci; on the following segments only the usual transverse sulcus, this lying in a shallow transverse depression or weak constriction and distinct across the dorsum throughout. Surface of second plate similar to that of collum but in following plates the striae become more and more restricted to a longitudinal direction, soon forming a dense series giving the characteristic silky lustre as in *D. sericoides* and related forms. Scobina from eighth segment to the thirty ninth or fortieth; each a deep lunate impression within some finer lines in front of this.

Angle of anal scutum very obtuse, rounded. Surface densely finely punctate, not striate, shining; from each lateral margin behind a series of furrows running mesad. Valves compressed; surface densely finely punctate, shining.

Number of segments, fifty-five to fifty-eight.

Length (male), near 105 mm.; width, 11 mm.

This species may be distinguished from the related Fijian forms having a similar characteristic silky lustre by the different form of the male gonopods. The telopodite of the posterior pair has the inner branch slender and finely pointed as in these other species, the tip not extending beyond the middle of the length of the outer branch; the latter is characterized by being bent or coiled into two complete circles, one lying within or immediately over the other.

572. DINEMATOCRICUS SERICOIDES, sp. nov.

TYPE.—M. C. Z. 4,710. PARATYPES.—M. C. Z. 4,711. Fijis: Suva (A. G. Mayer).

General color fuscous to olive-black, the covered part of prozonites commonly in some degree lighter; below level of pores there is typically a dull ferruginous to a somewhat light olive-brown stripe over the caudal border. Legs fuscous to ferruginous. Anal scutum and valves olive-black without lighter markings.

Sulcus of head fine and complete, though fainter near level of antennae, where crossed by several striae angled on the sulcus. Surface in general smooth and shining.

Collum laterally well rounded; failing much of reaching the lower edge of the second tergite which is not at all excavated below. Surface appearing smooth and shining, very finely coriariouly striate, the striae coarser below on each side.

Second, third, and fourth tergites with dorsum crossed by a transverse stria; on the fifth tergite a weak anterior transverse stria and a deeper sulcus near middle but curving farther forward on each side with behind it on each side a shorter vertical stria paralleling it. On the sixth (first porigerous) tergite two complete deep transverse sulci, the ordinary segmental one which is strongly curved behind the pore and one in front of this beginning a little above the level of the pore. On the sixth tergite the anterior sulcus is weaker and on the seventh absent. Caudally the other sulcus becomes weaker and weaker above to very obscure and finally quite absent. Covered part of tergites coriariouly striate, the striae chiefly subvertical; elsewhere the surface is very densely marked with fine longitudinal sulci which give a silky lustre as in *D. holosericeus*. Scobina from the eighth to the thirty fifth segment; each a deep lunate impression with fine striae behind it.

Anal scutum short, the posterior angle very obtuse, not free, exceeded by the valves, surface shining, less dull and silky appearing than the other tergites but similarly crossed by numerous longitudinal striae which, however, are coarser and less regular. Valves but slightly compressed, smooth, and shining, without striae excepting a series of weak ones across upper border.

Number of segments forty-seven to fifty-one.

Length (female), 82 mm.; width, 8.5 mm. The males proportionately somewhat stouter, a specimen 78 mm. long having a width of 9 mm.

Evidently close to *D. holosericeus* Brölemann, but readily distinguished by the form of the gonopods. In these the distal lobe of the median plate is proportionately somewhat longer, more angular at apex and narrower across base; the distal piece of the posterior gonopods has the inner branch even smaller than in *D. holosericeus* but the most pronounced difference is in the outer branch which bends strongly first toward the body, then ectad and then at tip curves back in a hook.

573. DINEMATOCRICUS PERMUNDUS, sp. nov.

TYPE.—M. C. Z. 4,729. PARATYPES.—M. C. Z. 4,730. New Guinea: Manokwari (Thomas Barbour).

Color a deep shining olive to black. Posterior margins of segments rufescent, the collum also in front as well. Head like the body, or in clypeal and

labral region tinged with rufous. The legs are dark brown, with the distal joints in some degree paler, sometimes fulvoferruginous.

Sulcus of head complete. Foveolae 2 + 2. Below with three large rounded teeth of which the median is largest. Antennae not exceeding the second segment.

Collum not reaching level of second tergite, the latter not excavated below. Lower margin rounded, margined below and in front up to level of eye.

Surface of segments in general smooth and highly polished. Covered anterior region of segments densely transversely striate. Exposed region striate only beneath as in *D. dives*. Transverse suture or sulcus fine below level of pore, extending on most but part way up dorsum, not evident in the middorsal region. Scobina present on segments eleven to nineteen inclusive.

Anal tergite furrowed transversely in front of triangular caudal region, the latter caudally rounded. Valves much exceeding the tergite; characteristically angled above behind tip of the tergite; mesal borders very strongly compressed.

Number of segments forty-eight to fifty.

Length (female), up to about 175 mm.; width, to 17 mm.

Apparently close to *D. dives* (Silvestri) though lack of the male prevents full comparison.

574. DINEMATOCRICUS LABASANUS, sp. nov.

TYPE.—M. C. Z. 4,721. PARATYPES.—M. C. Z. 4,722. Fijis: Labasa (W. M. Mann).

General color above shining black; sometimes of a vague purplish tinge, commonly on the sides below the pores. Legs and antennae dark of a distinct purplish cast.

The sulcus of the head is complete. Foveolae 2 + 2. Surface smooth and shining, marked, however, with the usual oblique striae which are fine.

Collum well rounded below. Margined below and along the anterior corner in front. Surface very finely coriarius. Ending well above lower edge of the second tergite.

Other tergites in general smooth and shining, the covered part of each ring with fine oblique striae. Suture in anterior segments distinct entirely across plate but caudally becoming weaker and often obscure above the pores, the suture always single.

Anal scutum mesally rounded caudally; surface smooth and shining or in part with fine, not dense, granules; much exceeded by the valves. Valves strongly compressed, their surface appearing smooth and shining but in part covered sparsely with fine weak granules visible only under good magnification.

Number of segments fifty-eight to sixty-three.

Length (male), about 165 mm.; width, 12.5 mm.

Related to *D. micropygus* (Silvestri), but a larger species differing in having the two branches of the telopodite very unequal in length, the inner branch extending a little beyond the middle of the outer one, and also in having the process of the median plate more lanceolate, and the margin of the basal part more evenly curved. Also the scobina extend caudad only to the twenty third somite instead of to the thirty second.

575. *DINEMATOCRICUS BIONUS*, sp. nov.

TYPE.—M. C. Z. 4,727. Solomons: Bio (W. M. Mann).

Color olive-brown. Legs deeper, somewhat purplish brown of olive cast.

Sulcus of head interrupted near middle, elsewhere sharply impressed. Foveolae 2 + 2. Incision in lower margin with a wide dentate plate showing four rounded teeth or crenations of which the two middle ones are less deeply separated. Surface above with coriarius markings, the transverse striae below much as usual.

Collum narrowly rounded below, not reaching lower level of second tergite. Margined below and up the anterior side of the corner. Surface closely but finely coriarius.

Surface of other segments finely loosely coriarius with numerous very fine puncta intermingled, the striae weak especially in the posterior region and running chiefly in the longitudinal direction. Suture traceable across dorsum on all segments but more distinct in anterior region. Transverse striae well marked below level of pore, then more oblique; on the fifth and sixth segments a transverse sulcus in front of the suture which is much deeper than the latter, a similar sulcus also on the second, third, and fourth segments but the ordinary suture obsolete on these segments. Scobina transversely elongate, separated from each other by only their own width; each a deep lunate concave impression followed by a finely striate area of a low triangular form; present on segments from the eighth to the twenty eighth inclusive.

Anal scutum and valves with surface like that of preceding segments. Valves protruding but border not set off by concave impression.

Number of segments, sixty.

Length (female), near 145 mm.; width, 11.5 mm.

576. *DINEMATOCRICUS OBIIVS*, sp. nov.

TYPE.—M. C. Z. 4,725. PARATYPES.—M. C. Z. 4,726. Solomons: Maru Bay, San Cristobal (W. M. Mann).

General color olive, the anal scutum and valves sometimes lighter, more brownish. Legs also olive.

Sulcus on head discontinuous near middle and again toward the labral region. Foveolae 2 + 2. Median incision in lower margin wide, the tooth correspondingly broad, distally truncate or rather slightly concave.

Collum margined below and more weakly about the anterior corner in front, with a fine longitudinal sulcus or stria, as is frequent, at level of eye on each side, joined above by two short transverse ones. Surface coriarius, the markings coarser below. Not reaching lower level of the second tergite.

Surface of other tergites in general marked with numerous exceedingly fine puncta which caudad on each segment tend to give rise to exceedingly short, fine, longitudinal striae. Below level of pore with numerous longitudinal striae forming an obtuse angle at the suture, a few more widely separated ones also above level of the pore. Suture fine, extending up to level of pore about which it bends but obsolete above this level. On the more anterior segments, however, the suture is distinct entirely across the dorsum and in front of it on each side one or more of the striae above the level of the pore curve transversely and are elongate, on the fifth, sixth, seventh, and eighth segments forming a complete secondary sulcus in front of the ordinary one. Scobina small and short, lunate pits occurring on segments from the tenth or eleventh to the twenty fifth.

Anal valves exceeding the tergite, protruding, but mesal borders scarcely set off by compression. Surface of valves and tergite with numerous exceedingly fine points as in other segments but otherwise smooth.

Number of segments, sixty to sixty-two.

Length (female), near 150 mm.; width, 13.5 mm. A second female has a width of 15 mm.

The species may be readily distinguished by the structure of the gonopods. In these the median piece has the basal part transversely oblong with the anterior margin convex; the distal part exceeds the basal in length, and is constricted at base, above which it is oblong-lanceolate in form. The telopodites of the posterior pair are very long and cross each other in the middle line; the outer piece is especially long and evenly curved, becoming very fine distad; the inner branch is very short and slender in comparison with the other, lying much below the middle of it.

577. *DINEMATOCRICUS PELLotropis*, sp. nov.

TYPE.—M. C. Z. 4,953. Fijis: Mt. Victoria (W. M. Mann).

General ground color fulvous of a vague greenish cast on sides and above often showing a weak ferruginous tinge; surface of keels black, the color of the two sides often nearly uniting along caudal edge of plate, often ending abruptly at prozonite or else extending a varying distance upon the latter and spreading or not, commonly a spot in middorsal region; on first several

somites behind collum the dorsum of tergite solid black, the black farther caudad enclosing more and more of yellow. Anal valves black as also the tergite excepting distal angulate portion which is fulvous. Anal scale fulvous. Collum black with anterior border pale; head covered with a dense dark network which to naked eye appears solid, the labrum fulvous. Legs fulvous. Antennae dark, especially distally.

Sulcus of head nearly complete, only narrowly interrupted in frontal region. Foveolae 2 + 2. Antennae extending to third segment.

Segmental suture not clearly defined, the keels present on metazonite above continuing upon prozonite without complete interruption though not so uniformly as in *D. decipiens*. The keels are low but narrower and more sharply defined than in *D. decipiens*; not present as such below pores, though the flat region between the striae are similarly dark colored as in the dorsal region, the stripes wider; usually thirteen keels on dorsum of each segment between pores. Posterior margins of somites not sinuate. Scobina much narrower than in *D. eutropis*, ceasing at somite XVI.

Number of segments, thirty-five.

Length (female type), 41 mm.; width, 5 mm.

578. DINEMATOCRICUS EUTROPIS, sp. nov.

TYPE.—M. C. Z. 4,929. Fijis: Nagasu (W. M. Mann).

Prozonites a pale, somewhat greyish olive; metazonites abruptly a much darker color, deep brown. Legs fulvous, paler distally. Anal valves and anal tergite olive, the latter narrowly bordered with pale. Collum olive, narrowly bordered with brown.

Sulcus of head distinct and complete. Antennae short, not extending beyond collum. Foveolae 2 + 2.

Second tergite extending much below level of collum. Sutures of segments clearly and uniformly impressed. Pore in line with suture which bends sharply about its posterior portion. Metazonites entirely across dorsum and down sides below pores as well with numerous sharply elevated, rather thin, keels which end abruptly in front at the median suture; below middle the keels decrease in height becoming finally merely the sharply defined lower edges of the strongly impressed striae; usually about twenty-five keels on dorsal region between pores. Between the median and anterior suture are somewhat oblique longitudinal sulci each with one edge elevated into a narrow low keel these keels more numerous and much more weakly developed than those of the metazonite, being obvious only under the microscope. Posterior edges of segments not sinuate. Scobina large, very wide, extending to somite XXV.

Anal tergite obtusely angular above, much exceeded by the valves, the mesal borders of which are elevated and strongly compressed.

Number of segments, thirty-eight.

Length (female), near 50 mm.; width, $\overline{5}$ mm.

579. *DINEMATOCRICUS DECIPIENS*, sp. nov.

TYPE.—M. C. Z. 4,753. PARATYPES.—M. C. Z. 4,754. Fijis: Waiyanitu (W. M. Mann).

The sides are black in color without lighter markings. The dorsum between the pores is of a lighter shade, typically dusky over a fulvous background or in part with a somewhat reddish tinge, crossed longitudinally with black lines along the sulci; beginning near the middle of the length there is a brighter fulvous median dorsal longitudinal stripe which is narrowly pointed anteriorly and regularly widens caudad to the last seutum, the same band sometimes represented farther cephalad by a series of disconnected light dots where there may also be a more lateral series of similar dots on each side. The anal segment as a whole fulvous to ferruginous. Legs bright yellow to pale ferruginous.

The sulcus of the head is sharply impressed throughout its length. Foveolae 2 + 2.

Collum well rounded below, margined as usual, the margining sulcus weak. Not attaining lower level of second tergite.

The segments in general are strongly striate beneath and up the sides to the pore-level, with the covered part of the zonite smooth throughout. Above the level of the pore the dorsum is deeply longitudinally furrowed from the caudal margin forward to the anterior smooth covered zone, leaving between them broad rounded costae or keels. The number of these costae is mostly fifteen of which the middorsal one is ordinarily much wider than the others. Scobina extending to the twenty seventh segment.

The caudal plate does not cover the anal valves above, the latter protruding prominently.

Number of segments, thirty-six or thirty-seven.

Length of female, about 45 mm.; width, 4.6 mm.; depth, 5 mm. Length of male, 19 mm.; width, 3 mm.

This species is very close in its general appearance and structure to *D. carinatus* (Karsch). It may be distinguished at once in having the posterior margins of some of the segments distinctly sinuate above the scobina, the median region bulging convexly, and the costae or keels, which are low or flat, extending on the prozonites to the anterior region as well as across the metazonites. In the gonopods of the male the process of the median piece is narrower, more linear or but little spatulate in shape and is much longer in proportion to the basal piece which it exceeds in length. In the telopodite of the posterior gonopods the branches are very unequal, the exterior one the longer, weakly doubly curved, with the tip slightly expanded and blunt and bent; the lesser branch more slender, extending well beyond the middle of the principal one, pointed at tip.

580. *DINEMATOCRICUS PERSTRIATUS*, sp. nov.

TYPE.—M. C. Z. 4,755. PARATYPE.—M. C. Z. 4,756. Fijis: Waiyanitu (W. M. Mann).

General color black; typically each segment below level of pore with a flavous stripe behind suture not extending to caudal border. Legs flavous to pale ferruginous.

Head with sulcus distinct above and below but interrupted in the frontal region. Foveolae 2 + 2.

Collum failing much of attaining the lower level of the second tergite. Lower ends with angles widely rounded but lateral margin somewhat flattened.

The segments in general both below and on the sides and across the dorsum finely densely striate, the striae not so fine as, and the intervening ridges coarser than, in *D. sericoides* and allied species all of which have a silky lustre. On the dorsum part of the striae branch dichotomously, while in the middorsal region they form a series of arches. Segmental suture not evident. Covered zone of segments smooth. Scobina not present.

Anal segment lacking striae. Scutum failing much of covering the valves above. Mesal borders of valves not elevated.

The median plate of the gonopods has the basal portion anteriorly convex; the distal process is long, exceeding the basal plate in length, narrow, attenuated moderately distad and with the distal end bent cephalad. The anterior branch of the telopodite of the posterior gonopod coarser and longer than the other, the telopodite bent at level of bifurcation and the lesser branch diverging from the other, the middle of which it surpasses.

Number of segments, forty and forty-two.

Length (male), about 26 mm.; width, 2.6 mm.

581. *DINEMATOCRICUS NANNOIDES*, sp. nov.

TYPE.—M. C. Z. 4,748. PARATYPES.—M. C. Z. 4,749. Fijis: Taviuni (W. M. Mann).

The color is black with the legs ferruginous.

The sulcus on the head is discontinuous or at least very obscure in the frontal region. Setigerous foveolae 2 + 2. Surface with very fine points.

Collum widely rounded beneath and margined in the usual way. Surface with fine coriarious impressed lines. Second tergite extending much below its level.

The surface of the other segments is also marked with densely arranged fine and weak lines which are coriarious in arrangement but dominantly longitudinal. Segmental suture not evident either above or below the pore level. Each segment beneath and on the sides with numerous longitudinal

striae; these continue above the pore, where they are more oblique and more widely spaced, to the dorsum, several of the uppermost being curved transversely across the middorsal region and thus intervening between the two series.

Anal scutum caudally rounded, exceeded by the valves. Valves moderately compressed, the inner borders not conspicuously upraised. Surface of valves and scutum with fine coriarius lines like those of the other segments.

In the gonopods of the male the median piece has its basal part subtriangular with the distal tongue linear, rounded apically. In the telopodite of the posterior gonopods the two divisions are slender and nearly equal in length.

Number of segments, forty-two.

Length (female), to near 40 mm.; width, to 4.5 mm.

This species is readily recognized by its small size, few segments and the absence of all scobina.

582. DINEMATOCRICUS LEIOR, sp. nov.

TYPE.—M. C. Z. 4,765. PARATYPES.—M. C. Z. 4,766. Fijis: Taviuni (W. M. Mann).

This species in coloration resembles *D. leucopleurus* in being blackish with a series of light dots along each side of the dorsum and the lower part of the sides and the ventral region paler, light brown to somewhat ferruginous. In the lower light region each segment is darker in front of the suture. Legs fulvous or tinged with ferruginous. Head with a dark angled area between the eyes.

Sulcus interrupted in frontal region.

Collum widely rounded below. Exceeded by the second tergite.

Segments strongly striate up to level of pore; above pore with more widely separated and oblique striae, a few in the middorsal region running transversely on the anterior part of the plate but leaving the posterior part of the middorsal region wholly smooth. No scobina. Anal segment smooth and shining. Valves exceeding the tergite; not compressed or margined.

The middle plate of the gonopods with base semicircular or rather sub-lunate; the distal process longer than the basal region, strongly narrowed proximally, the distal region expanding into a subovate form. Prongs of the telopodite of the posterior pair very unequal; the longer one curved into an oval outline bending back across its own course; the smaller branch fine, closely appressed to the other the middle of which it does not attain.

Number of segments, forty-two or forty-three.

Length (female), about 45 mm.; width, 4.5 mm.

583. *DINEMATOCRICUS PERSIMILIS*, sp. nov.

TYPE.—M. C. Z. 4,791. PARATYPES.—M. C. Z. 4,792. Fijis: Nadarivatu (W. M. Mann).

In coloration the pattern is similar, but the light marking on each side of the dorsum of each segment in *D. leucopleurus* has the part or spot on the prononite obviously farther mesad than that on the metazonite, whereas the reverse relation of the spots holds in the present species; in *leucopleurus* also the anal tergite is black throughout excepting a narrow caudal marginal stripe, and in the present species the side of the tergite is fulvous or whitish in all specimens farther dorsad than the light lateral region of the other segments; and similarly the lateral region of the collum is conspicuously lighter, these large light areas on first and last segments forming a striking feature in the coloration of the species.

The second tergite extends much farther below the collum than in *leucopleurus*.

Number of segments, thirty-eight to forty-one.

Diameter of female, up to 3.2 mm.; of the male, up to 2.8 mm.

Very close to *D. leucopleurus* in coloration, the sculpturing of the segments, in lacking scobina and in other features of general structure. In the gonopods of the male an easily detected difference is in the form of the median plate; in this the basal division is much larger, more strictly semicircular with the caudal margin much less obviously arcuate; whereas in *D. leucopleurus* the distal process is nearly parallel-sided except toward the tip, in the present species the process is strongly acuminate from its base to a narrow tip, the latter, however, rounded and not narrowing or itself acuminate; it equals the telopodite, which in *leucopleurus* is shorter. In the posterior gonopods the lesser branch much shorter and more slender than the other, very closely appressed to it, a little divergent at tip.

584. *DINEMATOCRICUS LEUCOPLEURUS*, sp. nov.

TYPE.—M. C. Z. 4,757. PARATYPES.—M. C. Z. 4,758, 4,759, 4,764. Fijis: Somo Somo, Lasema, Levuka (W. M. Mann).

Sulcus interrupted in the frontal region. Foveolae 2 + 2.

Collum much exceeded below by the second tergite. A longitudinal fine sulcus or stria at level of eye on each side connected with the one of opposite side by two transverse striae.

Anal valves exceeding the scutum. These parts with coriarius lines, but not striate like the preceding segments.

Median plate of male gonopods formed much as in *D. perstriatus*; basal division nearly sublunate, its proximal margin arcuate and the lateral angles narrow, acute; distal process slender, narrowed at the tip which is acutely rounded, longer than the head division, but bent cephalad at tip as in *perstriatus*. In the telopodite of the posterior pair the branches are straighter, with the lesser one applied closely to the other, not divergent as in the other species.

Number of segments, thirty-five to thirty-seven.

Length (female), 27 mm.; width, 3.1 mm.

This species is very similar to *D. perstriatus* in lacking scobina and in having segments closely, finely longitudinally striate above as well as laterally and below. It differs conspicuously in color, having the lower part of the sides and venter flavous, often of a brick-red cast, the intervening dorsal region greyish black, the prozonites being paler, and of a somewhat bluish cast; along each side of the dorsum a series of small pale spots, a series of light marks also at level of the pores, each mark being a light line from the pore along the longitudinal suture at its level. Anal scutum and valves shining black. Legs flavous.

585. DINEMATOCRICUS FIJIANUS, sp. nov.

TYPE.—M. C. Z. 4,718. PARATYPES.—M. C. Z. 4,719. Fijis: Nagasau (W. M. Mann).

The color of the types is light brown with irregular lighter markings. Legs light testaceous with proximal joints brown.

Sulcus of head discontinuous near level of antennae. Foveolae 2 + 2. Smooth and shining, with some fine striae of usual distribution.

Collum more angular below than in related species, the margin across anterior corner oblique, straight. Margined along anterior corner as well as below. A longitudinal stria at level of eye meeting two transverse sulci running across dorsum as in *D. rex* and two below proceeding from a common lower point. Second tergite extending below collum; not excavated.

Sulcus single throughout, no anterior sulcus on any of the segments. Sulcus becoming obscure caudad and then absent above. Scobina from sixth to twenty second segment; each of a series of striae.

Anal scutum longitudinally finely striate like the other tergites. Valves compressed; surface finely coriarius.

Number of segments, fifty-nine to sixty-one.

Length (female), 114 mm.; width, 11.2 mm.; depth, 12.5 mm., the body being compressed and strongly pointed caudally. An adult male is only 84 mm. long and 9.5 mm. wide.

This species is like *D. scricoides* and *amphelictogon* in having the segments with a silky lustre due to densely arranged fine longitudinal striae, the striae in the present form being exceedingly fine. From these species and *D. holosericeus* it is readily distinguished not only by the structure of the gonopods but also in having the caudal margin of some of the anterior segments sinuate over the scobina as in *rex* and *undulatus*. In the gonopods the median plate has the distal process longer and narrower than in others of the group with silky lustre mentioned above, and it is acutely pointed distad. The telopodite of the posterior pair has both branches straight, the inner one extending beyond the middle of the outer.

586. *DINEMATOCRICUS MANNI*, sp. nov.

TYPE.—M. C. Z. 4,750. PARATYPE.—M. C. Z. 4,751. Fijis: Wainunu (W. M. Mann).

The general color is somewhat olive-brown with the legs ferruginous, sometimes more greenish with the posterior borders of segments brown. Head darker, black or somewhat olive, paler in a median stripe that widens ventrad.

Sulcus of head discontinuous in the frontal region. Surface with deep impressed lines above arranged coriariouly. Foveolae 2 + 2.

Collum only a little exceeded by the second tergite. Lower margin widely rounded, margined as usual. Surface with fine coriariou markings.

Surface of other segments with impressed lines very fine, not deep, short, anastomosing but chiefly longitudinal, most distinct on posterior part of ring. Longitudinal striae below and on sides well separated, some occurring also above the pore, these more oblique. Suture absent dorsally. The bisinuation of part of the segments so deep that the scobina are in part uncovered. Scobina occurring only to the twenty second segment inclusive.

Surface of anal segment appearing smooth and shining; under the lens showing coriariou markings. Valves exceeding the scutum; but little compressed, the margins not set off.

Number of segments, fifty-six.

Length (female), near 52 mm.; width, 5.6 mm.

This species is one of several occurring in the Fijis which have the posterior borders of some of the anterior segments bisinuate, an incurving or emargination occurring on each side over the corresponding scobina of the succeeding segment. The emarginations in the present species are particularly strong.

587. *DINEMATOCRICUS ATROFASCIATUS*, sp. nov.

TYPE.—M. C. Z. 4,761. Fijis: Suva (W. M. Mann).

The general color is brown of a ferruginous tinge with a broad dense black band along each side of the dorsum; the light dorsal band embraced between the two black stripes includes at its outer edge on each side a longitudinal series of lighter fulvous spots, one on the prozonite of each segment. Legs light ferruginous. Anal scutum black excepting a narrow pale caudal border and a ferruginous spot above into the middle part of which the black extends back in an angular tongue.

Sulcus weak or absent in the frontal region. Foveolae 2 + 2.

Collum not attaining lower edge of the second tergite. Surface densely covered with fine impressed points and lightly impressed short striae, the surface to the naked eye appearing smooth and shining.

The surface of the other segments also marked with numerous fine puncta and more weakly impressed short lines. Covered zone of segments smooth or nearly so. In front of sulcus above level of pore on each side a series of well-separated oblique striae the most dorsal of which run transversely parallel to the segmental sulcus or suture with sometimes one or more others in front of it, below pore the longitudinal striae evident in front of suture over the entire side but caudad of it they occur only lower down. The suture distinct, angled at level of pore. Scobina extending to segment twenty-four or twenty-five.

Anal segment with surface like that of the others. Valves exceeding the scutum.

Number of segments, forty.

Length (female), about 40 mm.; width, 4.2 mm

588. *DINEMATOCRICUS LAMPRODESMUS*, sp. nov.

TYPE.—M. C. Z. 4,723. PARATYPE.—M. C. Z. 4,724. Fijis: Labasa (W. M. Mann).

Shining olive-black. Legs brown; a paratype light olive with segments bordered behind with dark and legs more ferruginous.

Only one large foveola distinguishable on each side in the type. Surface of head in part, especially above, finely coriarious in markings.

Collum not reaching lower edge of the second tergite. Margined below and also with a short submarginal sulcus at the anterior corner detached from the lower margining sulcus. Surface smooth and shining.

Anterior covered border of segments finely vertically striate. On some anterior segments also with some transverse striae exposed in front of the suture, these striae wavy and discontinuous. Suture distinct on the sixth

segment, weak on the seventh and obscure or absent above on the following ones. Surface in general smooth and shining. Scobina in form of deep lunate impression followed by the usual very fine striae; extending caudad to the thirty third segment.

Anal tergite of usual form, caudally rounded, much exceeded by the valves, surface smooth and shining as is also that of the valves. The latter with surface somewhat flattened but the edges not set off by more marked compression.

Number of segments, forty-six.

Length (female), about 95 mm.; width, 10 mm.

589. *DINEMATOCRICUS PARVIOR*, sp. nov.

TYPE.—M. C. Z. 4,728. Solomons: Ngi (W. M. Mann).

Deep olive. Legs lighter, more brownish.

Sulcus of head discontinuous at middle. Foveolae 2 + 2. Lower emargination with three distinct teeth.

Collum well rounded laterally. Not reaching lower level of second tergite. Margined below and up the front of the corner in the usual way. Surface with weak coriarius lines. A wavy longitudinal stria at level of eye.

Surface of anterior segments also with weak coriarius lines, but caudad these quickly become obsolete, leaving the surface wholly smooth. Longitudinal striae below level of pore deep, more numerous and complete in front of suture, where there are also a few above the level of the pore. On most segments the transverse sulcus is lost in a shallow furrow above which lies a number of weak furrows paralleling it. Scobina present to segment thirty-seven.

Anal scutum and valves with sparse coriarius lines. Valves exceeding the scutum as usual.

The distal process of the median plate of the male gonopods narrowed proximally, being ovatelanceolate in form much as in *D. obvius*. The telopodites are also much as in that species, crossing in the middle line and with the lesser branch very short, and well below middle of the longer one; telopodite shorter than in *obvius*.

Number of segments, sixty-one.

Length (male), near 62 mm.; width, 7 mm.

590. *DINEMATOCRICUS TULAGIANUS*, sp. nov.

TYPE.—M. C. Z. 4,915. PARATYPES.—M. C. Z. 4,916. Solomons: Tulagi (W. M. Mann).

Sulcus of head interrupted in frontal region, distinct elsewhere. Clypeal foveolae 2 + 2. Antennae short; sensory cones four.

Second tergite extending below level of lower end of collum, flattened below. Collum finely margined below and about anterolateral corner, not otherwise striate, smooth.

Striae of metazonites on lower sides sharply impressed, those of the pronotites more lightly impressed, curving upward at anterior ends, especially the upper ones which occur farther dorsad than those of the metazonite but do not attain the level of the pore. Tergites crossed by two sutures both of which are distinct entirely across dorsum; the anterior one of these takes its origin near level of pore. Posterior margins of most scobiniferous tergites with posterior margins strongly sinuate over each scobinum of succeeding plate. Scobina extending from seventh to thirty seventh segments.

Anal tergite much exceeded by the valves. The latter strongly compressed, their mesal borders elevated.

In the gonopods of the male the anterior median plate has the median distal tongue of a sublanceolate form, narrow proximally and with apex narrowly rounded; the distal margin of basal part on each side is straight, at right angles to axis of tongue but with cetal corner on each side rounded. Telopodite of posterior pair with both branches very slender, the inner one curving mesad and diverging from the other; the latter curving first gently caudad of mesad and then more strongly caudad at tip.

Number of segments, forty-seven or forty-eight.

Length (male), 48 mm.; width, 4.2 mm.

A species characterized by its peculiar coloration, which is brown to reddish brown with caudal borders of somites darker, the color typically of a reddish cast; the legs of the male brick-red, those of the female ordinarily paler and less reddish. The color in general often suggests that of *Trigoniulus lumbricinus*.

591. *DINEMATOCRICUS PATRUELIS*, sp. nov.

TYPE.—M. C. Z. 4,925. PARATYPES.—M. C. Z. 4,926. Solomons: Pamua (W. M. Mann).

The entire body uniform shining black with legs ferruginous.

Sulcus on head of male typically continuous though weaker in the frontal and again in the upper clypeal region where in the female, at least, it is sometimes vague or absent. Clypeal foveolae 2 + 2.

Collum as usual widely rounded and shortly weakly marginate below. Second tergite extending much below collum, flattened beneath.

Segmental suture absent or very vague in upper dorsal region on all somites, distinct just above pore and down sides, curving closely about pore which is in line with it. Scobina very broad but few in number, not extending caudad of fourteenth segment. Above the scobina the margin of the preceding tergite in each case obviously sinuate.

Anal tergite caudally rounded, slightly exceeded by the valves.

Gonopods of male with distal part of median plate of usual sublanceolate form though rather broader than usual, distally subacute, very narrowly rounded. The telopodite of the posterior gonopods with the slender distal branches both curving in general mesad, but with the inner branch at tip curving up a little more dorsad than the somewhat longer outer branch.

Number of segments, forty-six.

Length, near 37 mm.; width, to 4.5 mm.

The species is apparently related to *D. biincisus* (Pocock) from New Britain, but the latter is much larger, being 80 mm. long with a width of 7 mm., and differs in having the caudal border of segments light banded; the posterior lateral region is also light. Its gonopods unknown.

592. DINEMATOCRICUS DIDYMUS, sp. nov.

TYPE.—M. C. Z. 4,940. Solomons: Tulagi (W. M. Mann).

Sulcus of head continuous and well marked. Foveolae 2 + 2.

Second tergite extending much below collum, the lower margin in side view less angulate at middle than in *D. patruelis*.

Suture of segments obscure or absent above as in the other species. Posterior borders of some of the anterior segments also similarly strongly bisinuate, incurving over the scobina. The latter very large, as in *patruelis* and apparently *biincisus* (Pocock), and ceasing at or near the fourteenth segment as in the former species.

Anal tergite exceeded by the valves. Median plate of male gonopods strongly narrowed at base above which subelliptic with acute tip which is nearly on a level with distal end of anterior gonopods. Branches of telopodite similar to those of *patruelis* but much less strongly curved and the two branches uniformly diverging distad, not first diverging and then again approaching each other.

Number of segments, forty-two.

Exceedingly close to *D. patruelis*. It differs strikingly in color, being, instead of uniform black, brown with a narrow dark annulus along the caudal border of each segment. Anal tergite blackish as are also the valves dorsoanteriorly. Legs also brown instead of ferruginous.

593. DINEMATOCRICUS MANEUS, sp. nov.

TYPE.—M. C. Z. 4,927. PARATYPES.—M. C. Z. 4,928. Solomons: Wainoni Bay (W. M. Mann).

General color of segments brownish black with metazonites cingulate with light brown, the light band broadening below pore and sometimes below embracing prozonite as well as metazonite while dorsally it may be absent or present only across anterior region of metazonite, the caudal portion remaining blackish like the prozonite. Legs reddish brown or ferruginous. Collum bordered all around with light, otherwise shining black like the head.

Sulcus of head rather weak, interrupted briefly in frontal region. Clypeal foveolae 2 + 2.

Lateral striae of typical segments of median region rather coarse and deeply impressed, well separated excepting ventrally, angled at suture and rising obliquely both in front of and behind the latter but more so in front as usual. Similar striae for a short distance above pore but this not crossing posterior portion of metazonite. Suture distinct below and immediately above pore but across dorsum passing into a shallow broader and less distinct furrow; suture above pore in line with center of pore, curving closely about the latter above but only gradually resuming position below. Scobina very small, ceasing at twenty third segment.

Number of segments, fifty-five.

Length, up to near 40 mm.; greatest width, 5.6 mm.

594. *DINEMATOCRICUS AUKIANUS*, sp. nov.

TYPE.—M. C. Z. 4,930. PARATYPES.—M. C. Z. 4,931. Solomons: Auki (W. M. Mann).

Body olive-black, the color deeper along caudal border, anterior region of covered part of prozonite lighter and a spot on each scobinum often yellow. Legs light ferruginous.

Sulcus of head distinct and complete though weaker and sometimes obscure for a short distance in the frontal region. Clypeal setigerous foveolae 2 + 2. Antennae when bent back along side reaching to fourth segment.

Second tergite extending much below collum, the latter of usual general form and not specially marked.

Suture of segments complete though fine and not deep across dorsum. Covered part of prozonite and anterior part of exposed portion dorsally with a number of strong transverse striae of which the most posterior, taking its origin well above the pore on each side, extends completely across dorsum, this much coarser and deeper than the primary suture. On venter and lower part of side of typical segment the striae are coarse and strongly marked, horizontal across metazonite and curving dorsad of cephalad in front of suture; the striae in front of suture continuous up to near pore but those caudad of suture ceasing toward middle of side. Suture contiguous with pore, curving about and embracing the dorsocaudal fourth of its circumference. Scobina small, extending to the thirty fifth somite. Segments caudally obviously bisinuate, the margin incurving over each scobinum of the succeeding segment.

Anal tergite rounded, shorter than valves. Mesal region of valves strongly compressed and elevated, roughened with irregular impressed lines.

The tongue of anterior median plate of gonopods of the usual sublanceolate form; the main plate with anterior margin nearly transverse, a little convex, with distolateral corners rounded. The telopodite long, the outer terminal branch curving mesad and then proximad.

Coxae of the third to seventh legs in male with the usual subconical ventral processes of which those of the third segment are largest.

Number of segments, forty-eight.

Length, to 60 mm.; width, to 5 mm.

595. *DINEMATOCRICUS EURHABDUS*, sp. nov.

TYPE.—M. C. Z. 4,932. PARATYPES.—M. C. Z. 4,933. Solomons: Auki (W. M. Mann).

Sulcus of head complete. Foveolae 2 + 2. Antennae reaching fourth segment or nearly so.

Second tergite extending well below level of collum, flattened beneath. Collum of usual form.

In the ordinary somites the suture curves strongly about the caudal border of the pore; it is well marked laterally below and for some distance above pore but is weak or obscure across middorsal region. Metazonite rising above level of prozonite. Oblique striae of prozonites occurring well up toward pore, the striae of metazonites ceasing near middle of side. Scobina moderate, extending to thirty fourth somite. Caudal edge of somites bisinuate over scobina.

Anal valves a little compressed, exceeding the last tergite.

Tongue of median plate of anterior gonopods lanceolate with apical region long and acuminate. Telopodite with inner branch very short, closely applied to principal branch, the outer branch very long and commonly curving across the opposite one in middle line.

Number of segments, forty-one to forty-three.

Length of male type, 34 mm.; width, 3.5 mm. Largest female 54 mm. long, with width 5.5 mm.

At once distinguishable from the preceding species in having a narrow middorsal longitudinal blackish stripe set off on each side by a still narrower fulvous stripe. The region between the middle of sides and the dorsal light stripe blackish like the middorsal stripe, the lower part of sides and the venter fulvous. Anal tergite mostly black dorsally, fulvous proximally and below; valves fulvous. Legs fulvous.

596. *DINEMATOCRICUS MIMETES*, sp. nov.

TYPE.—M. C. Z. 4,934. PARATYPES.—M. C. Z. 4,935. Solomons: Auki (W. M. Mann).

Very close to *D. eurhabdus*. It has the same color-pattern but the fulvous stripes are obscure and sometimes almost wholly obliterated. The fulvous band along lower part of side when present not extending so far dorsad. The male is larger and more robust, more nearly approaching the female in size.

In the gonopods of the male the inner branch, while small, is a little longer than in the species mentioned and curves strongly mesad away from the outer branch. The latter differs in being nearly straight instead of strongly curving. The tongue of the anterior median plate is more of a narrowly elliptic form beyond the narrowed, elongate basal part, not distally incurving on the sides and slenderly acuminate. Anterior gonopods distally stouter.

Somites more strongly sculptured, the prozonite in particular more strongly marked with transverse furrows and striae, a furrow a little in front of suture above especially deep and well marked though not always complete.

Number of segments forty-seven to forty-nine as against forty-one to forty-three in the other species.

Length of male, 48 mm.; width, 4 mm.

597. *DINEMATOCRICUS PLENUS*, sp. nov.

TYPE.—M. C. Z. 4,946. PARATYPES.—M. C. Z. 4,947. Solomons: Florida (W. M. Mann).

The general color of the prozonites is greyish brown, while the metazonites are a deeper, more reddish, brown. Legs ferruginous distally, more brownish proximally. Edge of labrum and of collum all around, black.

Suleus on head vague or absent for a short distance in frontal region, elsewhere distinct and continuous. Foveolae of clypeus, 2 + 2.

Second tergite extending well below collum, flattened beneath.

Segmental suture very distinctly impressed entirely across dorsum. Bending forward at level of pore to come in contact with it. A secondary suture in front of the primary one, than which it is in general much finer, especially in posterior region. Striae on metazonite beneath, these descending a little from behind forward to suture; striae on prozonite much finer and weaker, often scarcely detectable. Scobina very small but deeply impressed, ceasing at twenty fourth somite.

Anal valves much exceeding the tergite, somewhat angulate above, mesally compressed.

Number of segments, sixty-three.

Length (female type), near 70 mm.; width, 6 mm.

598. *DINEMATOCRICUS IMPRESSIOR*, sp. nov.

TYPE.—M. C. Z. 4,139. Solomons: Pawa, Ngi (W. M. Mann).

Agreeing closely with *D. fratrellus* in coloration, proportions, number of somites, and form and distribution of scobina. It differs obviously in the impressions on the somites. The segmental suture is more deeply impressed, especially above; opposite the pore it is more widely and less strongly curved, the curve in *D. fratrellus* embracing the pore more closely above and extending farther cephalad before continuing in the straight dorsal part. Pore larger. The most readily noticeable difference is the presence on the prozonite dorsally of strong, somewhat sinuous transverse striae which bifurcate and unite sparsely and of which the most caudal, taking its origin just above anterior edge of pore, is typically deep and complete or sometimes interrupted, forming the so-called second suture.

Number of segments, forty-eight.

Length, about 46 mm.; width, 5.5 mm.

599. *DINEMATOCRICUS RUBRIORIPES*, sp. nov.

TYPE.—M. C. Z. 4,941. Solomons: Wai-ai (W. M. Mann).

This species also belongs in the *D. fratrellus* group which appears also to include *biincisus* (Pocock). It differs from *D. fratrellus* and *impressior* in having the legs ferruginous instead of brown. It differs from those species also in the course of the segmental suture which remains essentially straight or even bows a little in toward the pore instead of presenting a strong curve away from the pore; thus the pore lies wholly in front of the suture instead of being in line with its dorsal and ventral parts. Lacking the secondary suture characteristic of *D. impressior*.

The type has forty-six somites as against forty-eight in the two preceding species.

Length of type, about 43 mm.; width, 5 mm.

600. *DINEMATOCRICUS MALAITAE*, sp. nov.

TYPE.—M. C. Z. 4,952. Solomons: Malaita, interior (W. M. Mann).

Color somewhat olive-black, wholly without lighter cingulations, but some of caudal segments lighter. Head lighter in frontal and clypeal regions with a dark median spot on frontal light region. On each side of body a series of small ferruginous spots over and in line with the scobina. Legs fulvous.

Sulcus of head distinct and continuous. Foveolae 2 + 2.

Second tergite extending well below collum, not excavated beneath.

Pore in line of suture which curves closely about its caudal half. Suture distinct. On most segments a secondary suture clearly evident in front of the true one with commonly other less complete transverse striae farther forward, these being less evident in the posterior region. Scobina ceasing at the thirty second segment. Posterior margins rather weakly but distinctly sinuate above the scobina.

Anal tergite much surpassed by the valves the mesal borders of which are elevated and compressed.

Legs long. Coxal processes of third and fourth legs of male obviously longer and more pointed than the others.

Tongue of anterior median plate of male gonopods lanceolate beyond the narrow basal stalk; anterior margin of basal division rising convexly on each side from base of stalk, the corners well rounded. Outer branch of telopodite of posterior gonopods straight to near tip where it curves moderately mesad of distad, slender throughout, acute, much longer than the inner branch.

Number of segments, forty-eight.

Length (male), near 52 mm.; width, 4.2 mm.

601. SPIROBOLELLUS RAINBOWI Brölemann.

Records Austr. mus., 1913, **10**, p. 117, pl. 16, fig. 35-38.¹

LOCALITY.—New South Wales: Shoalhaven Distr., Mt. Sassafras.¹

602. SPIROBOLELLUS CHRYSOGRAMMUS Pocock.

Weber's Reise, 1894, **3**, p. 400.¹

Spirobolellus chryso grammus Carl, Rev. Suisse. zool., 1912, **20**, p. 166, fig. 25, 26.² Attems, Semon's Forschungsreise, 1898, **5**, pt. 5, p. 515.⁴ Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 277.³

LOCALITIES.—Celebes: Makassar,^{1, 2} Loka.² Amboina.⁴ Kei Islands: Little Kei.³

603. SPIROBOLELLUS CHRYSOPROCTUS Pocock.

Weber's Reise, 1894, **3**, p. 400.¹

LOCALITY.—Celebes: Luwu.¹

604. *SPIROBOLELLUS SOLITARIUS* Carl.

Rev. Suisse zool., 1912, **20**, p. 168, pl. 6, fig. 27.¹

LOCALITY.—Celebes.¹

605. *SPIROBOLELLUS DRYMOPHILUS*, sp. nov.

TYPE.—M. C. Z. 4,863. PARATYPES.—4,864. New Zealand: Kaori Forest, near Swainson (W. M. Wheeler).

Body black; along each side of dorsum between level of pores and mid-dorsum a series of light ferruginous spots, one on each segment; each spot obliquely subtriangular or broadly T-shaped, the apex of triangle or middle piece of the T rising obliquely dorsocaudad, the spot sometimes including a dark mark. Base of anal scutum with a transverse band of ferruginous interrupted or not in the middorsal region. Anal valves also ferruginous on each side along anterior border. Antennae and legs ferruginous.

Setigerous foveolae 2 + 2. Antennae very short, fifth and sixth joints moderately clavately thickened. Eye subtrapeziform with base caudad, a little convex; ocelli typically in four transverse series, *e. g.*, 7, 6, 5, 3; a little less than twice their diameter apart. Suleus widely interrupted in frontal region.

Collum strongly narrowed down the sides; lower corners rounded with short lateral rising caudodorsad. Second tergite extending but slightly below level of callum, flattened beneath.

No segmental sutures, these represented only by a broad furrow especially evident down the sides. Striate beneath, the anterior ends of the striae running obliquely across the free prozonal region; on the sides are oblique striae on prozonite but no striae on metazonite; near level of pore on prozonite numerous fine wavy transverse striations on the anterior part of the free region and posterior part of the covered region, the latter otherwise smooth and unmarked. Dorsal region marked with weak, short, and chiefly longitudinal impressed lines.

Anal scutum caudally rounded, just covering the valves. Valves not margined.

In the male the third to sixth legs with slight ventral coxal processes, those of third, fourth, and fifth low and subconic, those of the last two pairs distally broader. Anterior legs of male not padded. Anterior median plate of gonopods large, subtriangular but distally truncate, the distal edge typically a little indented at the middle, much broader and less elongate than in *Zygo-strophus*; supported on its caudal surface by a narrower, distally acute and very thick, almost subcylindrical chitinous plate or thickening suggesting a fused second median plate; proximal arms broad, on each side extending ectoproximad against the gonopod but not coiled about the latter. not fused

with the outer chitinous plate and the latter not extending in mesad as a distinct lobe. Coxal piece of anterior gonopod broad proximally, abruptly reduced near middle to about half the basal width, the inner edge continuous, the outer abruptly bent in near middle of length, the distal narrower part still broad and plate-like and distally rounded. Telopodite longer than coxa, distally simple, broadly rounded. An opening between the two divisions antero-caudally leaves distal part of posterior gonopod exposed.

Number of segments, forty to forty-three.

Length (female), 34 mm.; width, 3.5 mm. Males smaller.

606. *SPIROBOLELLUS KURANDANUS*, sp. nov.

TYPE.—M. C. Z. 4,803. PARATYPES.—M. C. Z. 4,804, 4,805.
Queensland: Kuranda (W. M. Wheeler).

Characterized in color by a series of triangular black marks along the mid-dorsum, each mark being connected with the succeeding one by a narrow black line, the bases of the marks cephalad. The triangular markings set off on each side by a zig-zag yellow line. Below this on each side the prozonite blackish, the dark area narrowing and fading out ventrad; the metazonites light ferruginous. Anal segment and collum dark, but valves in part lighter. Head with a black area between eyes continued ventrad as a bifurcate band to the yellow labial region; antennal sockets bordered on mesal side with black, the space between this and the middle dark band areolated with a network of black as in also the vertex. Legs fulvous. Antennae with dark markings.

Suleus of head distinct above and below as usual. Eyes triangular, rather small, fully twice their diameter apart; ocelli in four series, *e. g.* 6, 5, 4, 2. Antennae very short.

Collum only moderately narrowed below, the lower end widely rounded, the caudal margin just above it convex, the anterior slightly concave.

Below the level of the pores the prozonites marked with striae which curve up cephalodorsad and finally turn transversely; just above the pore these replaced by some short curved impressions but the middorsal region smooth, without striolations. A series of horseshoe-shaped markings along the position of the suture, which is not evident, being represented by a slight depression. Metazonites above vaguely longitudinally rugose; below with the usual striae. Pores very small, a little in front of the middle of the metazonite but widely removed from the position of the suture.

Anal scutum rounded behind, just covering the valves. The latter with mesal borders but weakly elevated, not set off by distinct sulci.

Number of segments, forty-four.

Diameter (female), 2.8 mm.

607. STROPHOBOLUS IMMIGRANS Chamberlin.

Proc. Biol. soc. Wash., 1920, **33**, p. 38.¹LOCALITY.—Taken in California, U. S. A., on Stag-horn Fern imported from Australia.¹

608. STROPHOBOLUS AUSTRALIANUS Chamberlin.

Proc. Biol. soc. Wash., 1920, **33**, p. 38.¹LOCALITY.—New South Wales: Southerland.¹

609. PSEUDOSPIROBOLELLUS BULBIFERUS (Attems).

Pseudospirobolellus bulbiferus Carl, Rev. Suisse zool., 1912, **20**, p. 169.¹ Abhandl. Senckenb. gesellsch., 1912, **34**, p. 277.²LOCALITIES.—Celebes.¹ Aru Islands: Kabroor Island, Seltutti.²

TRIGONIULIDAE.

610. ACANTHIULUS BLAINVILLEI (Le Guillou).

Julus blainvillei Le Guillou, Bull. Soc. philom. Paris, 1841, p. 80.*Trigoniulus blainvillei* Silvestri, Ann. Mus. civ. Genova, 1894, **34**, p. 95.*Spiroboles dentatus* Daday, Term. fiz., 1893, **16**, p. 101.¹*Acanthiulus blainvillei* Brölemann, Records Austr. mus., 1913, **10**, p. 109, pl. 15, fig. 25, 26.²LOCALITY.—New Guinea.^{1, 2}

610a. ACANTHIULUS BLAINVILLEI var. INTERMEDIUS Attems.

Zool. jahrb. Syst., 1914, **37**, p. 382.¹LOCALITIES.—New Guinea: Kaji Bay, between Najd and Sekopo, Tami River, Astrolabe Bay.¹

610b. ACANTHIULUS BLAINVILLEI SEPTENTRIONALIS Attems.

Zool. jahrb. Syst., 1914, **37**, p. 385.¹LOCALITIES.—New Guinea: Tanak Verah Bay; Holland; south of Humboldt Bay; Zoutbron.¹

611. ACANTHIULUS WOLLASTONI Hirst.

Trans. Zool. soc. London, 1914, 20, p. 330, f. 17.¹

LOCALITY.—Dutch New Guinea: Mimika River.¹

612. ACANTHIULUS MURRAYI Pocock.

Spirobolus dentatus Daday, Term. füz., 1893, 16, p. 101, pl. 3, fig. 1-7.¹

Acanthiulus murrayi Carl, Abhandl. Senckenb. gesellsch., 1912, 34, p. 276.²

LOCALITIES.—Aru Islands: Samang, Wokan, Ngaiguli, Terangan, Dabo, Wammer,² Wokan Dabo.¹

PLOKAMOSTROPHUS, gen. nov.

Like *Trigoniulus* in having tarsal pads on the anterior legs of male, but differing in having strongly developed processes on coxae of third to seventh legs and in the structure of the gonopods. In these the telopodite of anterior pair similarly distally broad but on mesal side presenting a large distinct process or horn which extends distad beyond end of principal part and distally bends more or less ectad; telopodite not segmented. Anterior median plate distally truncate.

GENOTYPE.—*P. amphelictus*, sp. nov.

613. PLOKAMOSTROPHUS AMPHELICTUS, sp. nov.

TYPE.—M. C. Z. 4,936. PARATYPES.—M. C. Z. 4,937 and 4,938. Solomons: Tulagi, Auki (W. M. Mann).

General color black with most metazonites typically ferruginous below level of pore and also on dorsum each side of median longitudinal dark stripe, the dorsal spots typically more reddish; dorsally also the prozonites are paler anteriorly. Legs ferruginous.

Head with sulcus obscure or absent excepting in clypeal region in the lower part of which it is deeply impressed. With several arcuate transverse striae near level of antennae. Clypeal setigerous foveolae 2 + 2. Antennae short.

Collum of typical *Trigoniulus* form. Second tergite not extending below level of collum or scarcely so.

Segmental striae distinct laterally but disappearing above in a shallow transverse depression or furrow; widely curving opposite pore which is not in contact with it. A transverse series of deep impressed dots and marks in dorsal furrow, the dorsal surface otherwise essentially smooth. Below level

of pore prozonite marked with a series of finely beaded striae which curve dorsocephalad; metazonite with striae on ventral surface.

Anal tergite caudally rounded, scarcely equalling the valves. Latter sometimes compressed dorsomesally, the upper mesal border then appearing a little elevated.

Processes of coxae of third to seventh legs strongly compressed antero-caudally, those of the third pair distally most acute, the others being distally blunt and rounded.

The anterior median plate of male gonopods with distal median portion or tongue narrowly subtrapeziform, its sides distally more nearly parallel than proximally, the distal corners rounded with margin between them straight. The telopodite of anterior gonopods with main part distally convex, extending a little beyond coxa; mesal edge thin, the distal process at distal end rounded, on ectal side near middle bearing a small angular process.

Number of segments, forty-eight or forty-nine.

Length, about 42 mm.; width, 3.2 mm.

614. PLOKAMOSTROPHUS MANNI, sp. nov.

TYPE.—M. C. Z. 4,883; PARATYPES.—M. C. Z. 4,884. Solomons: Santa Anna (W. M. Mann).

General color black, a narrow caudal border on each segment obscurely ferruginous above, the stripe widening and becoming more distinct below. Legs ferruginous. In females especially often an obscure longitudinal ferruginous line or series of dots on each side of the dorsum.

Eyes transversely broadly subelliptic; ocelli in four series. Suleus as usual. Foveolae 2 + 2.

Collum strongly narrowed down the sides and margined up to level of eyes as usual; not striate.

Segments constricted or encircled by a furrow deep on the sides and shallow above; the furrow marked dorsally with a series of curved impressed marks and puncta. Metazonites with numerous longitudinal striae; prozonites with oblique striae present farther dorsad than those of metazonite, attaining very nearly the level of the pores.

Anal scutum not quite wholly covering the valves, rounded caudally. Valves not margined.

The usual tarsal pads present in the male.

Number of segments, forty-seven.

Length of male, near 33 mm.; width, to 3.2 mm.

Easily distinguished from the other species here described by the different form of the male gonopods. The anterior median plate has its distal undivided portion longer, almost equalling the anterior division of the first gonopods in length, and not triangular in form, being

narrowly trapeziform, the sides converging moderately distad and the distal end broad and straight. The anterior or coxal plate of first gonopods broadly concavely excavated at distal end with mesal angle rising higher than the ectal. Distal end of telopodite broadly rounded, longer than coxa in the distal concavity of which it fits, its mesodistal corner produced as usual, the process low, proportionately narrow, and distally rounded.

615. PLOKAMOSTROPHUS BRACHYCERUS (Silvestri).

Trigoniulus brachycerus Silvestri, Ann. Mus. civ. Genova, 1899, **39**, p. 448, fig. 18-20.¹

LOCALITY.—British New Guinea: Goodenough Island.¹

616. PLOKAMOSTROPHUS OBSCURUS (Silvestri).

Trigoniulus obscurus Silvestri, Ann. Mus. civ. Genova, 1899, **39**, p. 447, fig. 14-16.¹

LOCALITY.—British New Guinea: Dilo.¹

617. PLOKAMOSTROPHUS FLAVIPES (Attems).

Trigoniulus flavipes Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 508, pl. 24, fig. 47, 48.¹ Carl, Rev. Suisse zool., 1912, **20**, p. 161.²

LOCALITIES.—Celebes: Minahassa,¹ Lokon Volcano,² top of Suvara,² Sopotan Volcano.²

618. PLOKAMOSTROPHUS VENATORIUS (Silvestri).

Trigoniulus venatorius Silvestri, Term. füz., 1899, **22**, p. 210, pl. 12, fig. 30-32.¹

LOCALITY.—New Guinea: Erima, Astrolabe Bay.¹

619. PLOKAMOSTROPHUS GRACILIS (Silvestri).

Trigoniulus gracilis Silvestri, Term. füz., 1899, **22**, p. 210, pl. 13, fig. 34-36.¹

LOCALITY.—New Guinea: Erima, Astrolabe Bay.¹

620. SPIROSTROPHUS AMBONENSIS (Attems).

Trigoniulus ambonensis Attems, Semon's Forschungsreise, 1898, **5**, p. 512, fig. 3-5.¹ Carl, Rev. Suisse zool., 1912, **20**, p. 863.²

LOCALITIES.—Celebes: Mapane.² Amboina.¹

621. *SPIROSTROPHUS UNCINATUS* (Attems).

Trigoniulus uncinatus Attems, Semon's Forschungsreise, 1898, **5**, p. 513, pl. 41, fig. 6-8.¹ Carl, Rev. Suisse zool., 1912, **20**, p. 164, pl. 6, fig. 29.²

LOCALITIES.—Amboina.¹ Celebes: Buol.²

622. *SPIROSTROPHUS TACHYPUS* (Pocock).

Trigoniulus tachypus Pocock, Weber's Reise, 1894, **3**, p. 397, pl. 22, fig. 29.¹ Carl, Rev. Suisse zool., 1912, **20**, p. 165, fig. 16, pl. 6, fig. 28.

LOCALITY.—Saleyer.¹

623. *SPIROSTROPHUS SQUAMOSUS* (Carl).

Trigoniulus squamosus Carl, Rev. Suisse zool., 1912, **20**, p. 161, fig. 15, pl. 6, fig. 30, 31, 34.¹

LOCALITY.—Celebes: Posso Lake.¹

624. *TRIGONIULUS REONUS* Pocock.

Weber's Reise, 1894, **3**, p. 395, pl. 22, fig. 27, 27a.¹

LOCALITY.—Flores: Reo.¹

Male unknown.

625. *TRIGONIULUS COMMA* Attems.

Semon's Forschungsreise, 1898, **5**, p. 513.¹

LOCALITY.—Queensland: Burnett District.¹

Known only from the female.

626. *TRIGONIULUS BURNETTICUS* Attems.

Semon's Forschungsreise, 1898, **5**, p. 513.¹

LOCALITY.—Queensland: Burnett District.¹

627. *TRIGONIULUS ERYTHROPISTIUS* Attems.

Semon's Forschungsreise, 1898, **5**, p. 514.¹

LOCALITY.—New Guinea.¹

Only the female known.

628. TRIGONIULUS ORINOMUS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 512, pl. 24, fig. 51.¹

LOCALITIES.—Halmaheira: Soah Konorah. Oba. Ternate.¹

629. TRIGONIULUS SOLEATUS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 514.¹

LOCALITY.—Ternate.¹

630. TRIGONIULUS BRACHYURUS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 508, pl. 23, fig. 39, 41.¹

LOCALITY.—Batjan.¹

631. TRIGONIULUS PARVULUS Attems.

Abhandl. Senckenb. gesellsch., 1897, **23**, p. 515.¹

LOCALITY.—Batjan.¹

632. TRIGONIULUS LUMBRICINUS (Gerstaecker).

Spirobolus lumbricinus Gerstaecker, Gliederthier-fauna Sansibar, 1878, p. 516.

Spirobolus goesi Porat, Bih. Svensk. akad. Handl., 1876, **4**, no. 7, p. 35.

Trigoniulus goesi Pocock, Weber's Reise, 1894, **3**, p. 395.¹ Ann. mag. nat. hist., 1898, ser. 7, **1**, p. 327.³

Trigoniulus (?) goesi Schnee, Zool. jahrb. Syst., 1904, **20**, p. 406.²

Trigoniulus lumbricinus Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 27.⁴

LOCALITIES.—Celebes: Makassar.¹ Saleyer.¹ Kei Islands: Kei-Dulah.⁴ Aru Islands: bet. Dobo and Wangil, Wammer.⁴ Flores: Reo, Bari.¹ Timor: Kupang.¹ Ceram: Wahaai; Amboina (Thomas Barbour). Fijis: Nansori, Ba, Labasa (W. M. Mann); Suva (A. G. Mayer, W. M. Mann). Marshalls (?).² Ellice Island: Rotuma.³

A very widespread form, being carried readily through the agency of man.

633. TRIGONIULUS PLEURALIS Carl.

Abhandl. Senckenb. gesellsch., 1912, **34**, p. 274.¹

LOCALITY.—Kei Islands: Great Kei,¹ Kei-Dulah, Elat. Only the female known.

634. *TRIGONIULUS INCOMMODUS* Carl.Abhandl. Senckenb. gesellsch., 1912, **34**, p. 274.¹LOCALITY.—Kei Island: Great Kei: Elat.¹635. *TRIGONIULUS CERAMICUS* Attems.Bijdr. dierk., 1915, **20**, p. 8, fig. 14-18.¹LOCALITY.—W. Ceram: Honitetu.¹636. *TRIGONIULUS TERNATENSIS*, sp. nov.

TYPE.—M. C. Z. 4,786. Ternate (Thomas Barbour).

The color is black excepting the flavous, covered anterior zone and a flavous stripe along caudal margin which is very narrow above but widens and becomes more ferruginous down the sides. Anal scutum black excepting a very narrow flavous caudal border; the valves black proximally, fulvous caudally. Legs and antennae fulvous.

Head smooth. Sulcus absent in vertigial and frontal regions but traceable below. Eyes fully twice their diameter or a little more apart.

Collum of usual form. Smooth, wholly lacking striae or impressions. Marginations as usual. Rounded below and about the anterior angle while the posterior angle is subrectangular.

Zonites strongly striate below level of the pores, each stria curved ventrad at the sulcus and rising obliquely in front of it. Across the dorsum between the pores along the position of the suture as series of pronounced, coarse, impressions, in outline horseshoe-shaped to circular, the zonites otherwise wholly smooth above, these markings forming a salient characteristic of the species. Two or three such impressions may also occur below the pore. The suture proper absent as such, but represented by a wider depression or furrow, especially below.

Anal scutum rounded behind, equalling the valves, wholly smooth. Valves smooth, mesally very weakly and very narrowly margined.

Number of segments, forty-eight.

Width (female), 3.2 mm.

637. *TRIGONIULUS EURHABDOTUS*, sp. nov.

TYPE.—M. C. Z. 4,778. Ternate (Thomas Barbour).

Diameter (male), 2.6 mm.

Fulvous or ferruginous beneath and up the sides to or nearly to the level of the pores and in a narrow median longitudinal dorsal stripe, the remaining portion of the dorsum between pore-series being black. Legs fulvous.

Eyes subcircular, narrower in the antero-posterior direction than transversely; separated by rather more than twice their diameter. Antennae short. Setigerous foveolae 2 + 2.

Collum less strongly narrowed down the side than, *e. g.*, in *T. rubrocinctus*, the anterior side of the lower, narrower, part being convex while the corresponding caudal side is concave, further dorsad becoming convex.

Segmental sutures distinct throughout, not at all or scarcely wavy at level of pore. Segments not at all constricted, prozonite and metazonite being at the same level. Both prozonites and metazonites smooth.

In the gonopods the median plate the proximal arms are widely divergent, mesally nearly horizontal, curving more dorsad of ectal distally; each arm extending out about the base of the gonopod to its ectal side; median division short, distally rounded, curved forwards between the gonopods.

Number of segments uncertain since the caudal end of the body is missing; thirty segments are present.

Diameter (male), 2.6 mm.

638. TRIGONIULUS CAERULEOCINCTUS, sp. nov.

TYPE.—M. C. Z. 4,779. Ternate (Thomas Barbour).

The free part of prozonites are bluish, this color also extending a little caudad of the segmental suture, the covered zone fulvous; remaining part of metazonites ferruginous or somewhat reddish; in the caudal region an appearance of darker spots along the pore-level. Legs light ferruginous. Anal segment dark.

Antennae short. Eyes small, about two and a half times their diameter apart. Setigerous foveolae as usual.

Collum narrowed down side a little less than usual, the lower end well rounded ventrally, the anterior margin convex, the posterior straight or for a short distance slightly concave.

Transverse sutures very distinct throughout; only slightly waved at level of pore. Segments not constricted. Metazonites smooth; prozonites striate laterally and beneath, above with some coarse puncta in front of the suture.

Anal scutum about equalling valves, rounded behind, smooth. Valves smooth, not marginate.

The median plate of the male gonopods resembles that of *T. eurabdotus*, the arms extending out widely about the bases of the gonopods as in that species; but the distal part is much shorter, distally truncate and not bent caudad at tip; the coxal plates of the anterior gonopods shorter, not surpassing the median plate, truncate across distal ends.

Diameter (male), 2.5 mm.

639. TRIGONIULUS RUBROCINCTUS, sp. nov.

TYPE.—M. C. Z. 4,777. Amboina (Thomas Barbour).

Prozonites black, the metazonites red; anal segment black; collum and head dusky, the head with small lighter arecolations on each side mesad of eye and antenna and across the vertex. Antennae and legs yellow.

Antennae short and thick. Eyes subrotund with mesal side considerably flattened; separated by about twice their diameter. Setigerous foveolae 2 + 2.

Collum strongly narrowed down the side as usual, both the anterior and the posterior margin of the narrow part a little concave; the lower end well rounded. Margined from lower end up to level of eye in front.

The transverse suture on segments very distinct throughout, bowed semi-circularly about the pore. Each segment strongly constricted just in front of the pore, the metazonite rising conspicuously above the depressed caudal portion of the prozonite. Metazonite smooth, but the prozonite marked with deep longitudinal sulci both across dorsum, and down the sides and beneath.

Anal scutum rounded caudally; equalling the valves.

Median plate of the gonopods; very small, with the anterior process especially small and triangular; much exceeded by the widely diverging proximal arms which lie against the cephalomesal side of the anterior gonopods proper.

Number of segments, forty-five.

Diameter (male), 2.5 mm.

640. TRIGONIULUS BARBOURI, sp. nov.

TYPE.—M. C. Z. 4,775. Dutch New Guinea. Manokwari (Thomas Barbour).

Antennae short and thick. Eyes widely separated, subtriangular but with the sides convex and the angles more or less rounded.

Collum in form and relations as in *T. lumbricinus*.

The transverse suture of segments itself indistinct but its position clearly defined by a series of puncta. The metazonite rather strongly elevated above the prozonite. Both divisions of segment smooth, thus differing very obviously in appearance from *T. lumbricinus*.

Anal scutum a little exceeding the valves.

Number of segments, forty-seven.

Length (male), near 37 mm.; width, 3.5 mm.

In coloration somewhat similar to *T. lumbricinus* (Gerstaecker), but the antennae and legs are fulvous. The distal part of the anal scutum and the collum dusky.

It is most readily to be distinguished by the structure of the male gonopods, the median plate of which is decidedly smaller and especially narrower than in *T. lumbricinus* with the two proximal angles extending caudad as arms subparallel with each other, much less

divergent than in the genotype, and enclosing between them a deep cavity, while the distal part is subtriangular with the end rounded.

641. *TRIGONIULUS TAHITIANUS*, sp. nov.

TYPE.—M. C. Z. 4,853. PARATYPES.—M. C. Z. 4,854, 4,879. Society Islands: Tahiti.

Color greyish to bluish black with the caudal border of metazonites ferruginous, the ferruginous stripe widening down the lower part of the sides. Collum solid black or nearly so excepting a narrow ferruginous border. Anal segment dark, bluish black, excepting a narrow caudal border of ferruginous, to the scutum and the mesal borders of the valves also sometimes ferruginous or this color suffusing the entire surface. Antennae and legs ferruginous.

Surface of head smooth and shining. Sulcus fine, widely interrupted in the frontal region. Eyes not fully twice their diameter apart; subtriangular but with all the angles rounded; ocelli in seven series, *e. g.*, 5, 7, 8, 7, 6, 4, 2. Antennae short, reaching only to caudal edge of the collum.

Collum strongly narrowed down each side as usual, the caudolateral corner rectangular, the anterior one rounded. Lower and anterior border up to level of eye strongly margined, no striae above the deep margined one.

Second tergite extending but slightly below level of the collum, flattened beneath. Segments most with obvious furrows along position of the suture, this marked above and part way down the side below the pore with a series of horseshoe-shaped impressions. Metazonites below with the usual striae, these sparser and shorter dorsad. Second and several succeeding prozonites with numerous complete cross-striations over the dorsum, there the continuation of oblique striolations below level of pore. Caudally these break up into shorter curved marks, the latter soon becoming very short, sparse, and punctiform, while the prozonites in the posterior region appear almost wholly smooth and unmarked.

Anal segment smooth and shining. Scutum equalling the valves. The latter strongly margined.

Number of segments, forty-eight or forty-nine.

Width (female), 3.1 mm.

PHAGOSTROPHUS, gen. nov.

Lacking pads on tarsi of anterior legs of male. Most closely related to *Sympastrophus* in structure of male gonopods. Anterior median plate with distal tongue obviously angulate on each side, somewhat diamond shaped with distal end narrowly rounded, to elliptic instead of being broad and deeply incised. Coxal piece of anterior gonopods

broad, broadly articulating distally with the distal division which extends well beyond it. Second division broad throughout, a ridge rising at mesal edge distad and becoming free as a distinct process much as in *Sympastrophus* but with no distinctly separated rounded joint ectad of the region of this process.

GENOTYPE.—*P. pertinens*, sp. nov.

642. PHAGOSTROPHIUS PERTINENS, sp. nov.

TYPE.—M. C. Z. 4,921. PARATYPES.—M. C. Z. 4,922, 4,923. Solomons: Fulakora (W. M. Mann).

General color deep greyish brown to grey with darker posterior border to somites, the annulus enclosing a little in front of margin a much deeper colored narrow stripe or line behind which the border is often reddish while a lighter line may precede it. Legs brown to light ferruginous.

Sulcus of head very widely interrupted in median region. Setigerous foveolae 2 + 2. Lower margin very characteristic, the two sides straight, thickened and strongly chitinous, meeting in an obtuse angle in the middle whence they curve dorsad a little but form no distinctly set off median sinus; median teeth fused into a single plate crossing the angle. Antennae clavate, very short.

Collum nearly attaining lower level of second tergite which is slightly concavely excavated beneath. Lower end of collum narrowly rounded.

Suture of segments not strong, straight opposite the pore or sometimes widely curved. Caudal margin of tergites opposite pore often decidedly convexly bowed with an obtuse emargination part way down side from pore and sometimes one above pore. Dorsally the caudal margin also often obviously sinuate. On the sides segments crossed by numerous very fine, closely arranged beaded striae which on prozonite tend to branch and to rise dorsad a little. Above level of pore the fine surface of prozonite is densely marked with small horseshoe-shaped impressions with concavity caudad; the lines from some of these cross over the anterior part of metazonite; across dorsum the suture indicated merely by a shallow depression.

Anal tergite exceeded by the valves. The latter not margined or compressed; smoothly rounded.

Number of segments (male type), fifty-two.

Length (male), 37 mm.; width, 2.6 mm.

643. PHAGOSTROPHIUS WAIAINUS, sp. nov.

TYPE.—M. C. Z. 4,942. PARATYPES.—M. C. Z. 4,943. Solomons: Wai-ai (W. M. Mann).

Very similar in general appearance to the preceding species. It

differs in the form of the distal tongue of the anterior median plate of the male gonopods, this having the sides evenly convex instead of angulate and the distal end broadly rounded so as a whole to appear broadly spatulate instead of diamond shaped. Telopodite of anterior gonopods differing obviously in having the distomesal process larger, extending well distad of end of outer part instead of being exceeded by the latter and distally more strongly bent ectad.

In *P. pertinens* (male) the second tergite extends rather more below level of collum than in the present form where it extends but slightly below it. In the present species the repugnatorial pores are situated notably farther dorsad; the suture is laterally more clearly impressed and runs closer to the pore which it touches, often curving a little about its upper portion so as to bring the dorsal part of suture in line with it whereas in the other species the pore is well removed. The striae of the lower and lateral region up to and a little above pore are similarly dense but they are finer, more lightly impressed, and in posterior region in particular may appear obscure toward and above the pore.

Coxal processes of anterior legs of male larger.

Number of segments, fifty-six.

Width (male type), 3.2 mm., being more robust than *P. pertinens*.

644. PHAGOSTROPHUS WAINONENSIS, sp. nov.

TYPE.—M. C. Z. 4,918. PARATYPES.—M. C. Z. 4,949, 4,924. Solomons: Wainoni Bay, Pamua (W. M. Mann).

With color-pattern as in the preceding species. It is more robust than *P. pertinens*, agreeing rather with *waiainus* in this regard. The pores, as with *P. pertinens*, are lower on the side than in *waiainus*. In *P. pertinens* also the suture does not curve at all about the pore, being essentially straight; but it is closer to the pore than in *pertinens*, ordinarily coming in contact with its edge and often bending a little toward it. Striations of somites essentially as in the genotype.

Most readily recognized by structure of the gonopods. The tongue of the anterior median plate is broader than in the genotype; it is similarly obtusely angulate on each side but is less narrowed distad, being somewhat intermediate in form between those of the two preceding species. The mesodistal process of telopodite of anterior gonopod longer than in *P. pertinens*, rising a little above level of outer part, and notably stouter, broader especially distally where it

extends a little farther ectad; it rises less relatively to the outer part than in *P. waiainus*.

Number of segments, fifty-three or fifty-four.

Width (male type), 3.2 mm.; of female, to 3.5 mm.

645. PHAGOSTROPHUS HETEROPUS (Silvestri).

Trigoniulus heteropus Silvestri, Ann. Mus. civ. Genova, 1899, **39**, p. 444, fig. 6-8.¹

LOCALITY.—New Guinea: Wa Samson.¹

646. PHAGOSTROPHUS FASCIOLATUS (Silvestri).

Trigoniulus heteropus var. *fasciolatus* Silvestri, Ann. Mus. civ. Genova, 1899, **39**, p. 445, fig. 9, 10.¹

LOCALITY.—New Guinea: Ramoi.¹

647. PHAGOSTROPHUS DEMISSUS (Silvestri).

Trigoniulus demissus Silvestri, Ann. Mus. civ. Genova, 1899, **39**, p. 446, fig. 11-13.¹

LOCALITY.—New Guinea: Marsinam.¹

648. PHAGOSTROPHUS TACHYPUS (Pocock).

Trigoniulus tachypus Pocock, Weber's Reise, 1894, **3**, p. 397, pl. 22, fig. 29.¹

LOCALITY.—Saleyer.¹

649. PHAGOSTROPHUS KARYKINUS (Attems).

Trigoniulus karykinus Attems, Abhandl. Senckenb. gesellsch., 1897, **23**, p. 511, pl. 24, fig. 44-46.¹

LOCALITIES.—Halmadeira: Soah Konorah. Batjan.¹

650. PHAGOSTROPHUS VELOX (Carl).

Trigoniulus velox Carl, Abhandl. Senckenb. gesellsch., 1912, **34**, p. 271, pl. 11, fig. 1-4.¹

LOCALITIES.—Aru Islands: Dobo, Wangil, Durdjela, Wammer, Samang and Sungi Panua on Wokam, Seltutti, Sungi Kolobobo in Kobroor.¹ Kei Islands: Kei-Dulah.¹

651. PHAGOSTROPHUS HEMMORHANTES (Pocock).

Spirobolus haemorrhantes Pocock, Ann. mag. nat. hist., 1893, ser. 6, 11 p. 141, pl. 9, fig. 12, 12a.¹

Trigoniulus haemorrhantes Carl, Abhandl. Senckenb. gesellsch., 1912, 34, p. 272, pl. 11, fig. 5-9.²

LOCALITIES.—Kei Islands: Great Kei, Langgur,² Kei-Dulah,^{1, 2} Elat.²

AROSTROPHUS, gen. nov.

Very close to Phagostrophus but mesal distal process of telopodite of anterior gonopods much exceeding the outer part over which it may bend ectad, and distally subclavately expanded, the distal end oblique. Anterior median plate long, in length equalling or approaching coxoid of anterior gonopods.

GENOTYPE.—*A. mertonii* (Carl).

652. AROSTROPHUS MERTONI (Carl).

Trigoniulus mertonii Carl, Abhandl. Senckenb. gesellsch., 1912, 34, p. 273, pl. 11, fig. 10-13.¹

LOCALITIES.—Aru Islands: Dabo-Wangil forest, Wammer, Wardakau, Maikoor.¹

653. AROSTROPHUS KLOSSI (Hirst).

Trigoniulus klossi Hirst, Trans. Zool. soc. London, 1914, 20, p. 332, fig. 19A.¹

LOCALITY.—Dutch New Guinea: Utakwa River.¹

ZYGOSTROPHUS, gen. nov.

Differing from Spirostrophus, *e. g.* in the gonopods of the male. In the anterior gonopods the anterior or coxal piece is elongate and narrowed distally to a slender cornuate process, whereas the distal or caudal division, also elongate, is distally broad and erect. In Spirostrophus the coxal plate is distally much broader, exceeding in width the telopodite which, on the contrary, narrows to a slender cornuate process which curves mesad. The median plate has the distal or middle part much more elongate, not trapeziform, and distally acute.

GENOTYPE.—*Z. ferruginopes*, sp. nov.

654. ZYGOSTROPHIUS FERRUGINOPES, sp. nov.

TYPE.—M. C. Z. 4,794. PARATYPES.—M. C. Z. 4,795, 4,798. Queensland: Kuranda, 2000 ft. (H. L. Clark, W. M. Wheeler).

In this species the median plate is most like that of *Z. digitulus* Brölemann in its form; the median process is similarly long but is less parallel-sided, narrowing moderately to a little beyond the middle and then a little widening into a somewhat spatulate end-region with acuminate tip; the outer (basal) lobe of each arm is much broader and projects more freely, the arch formed by the arms is rather longer with the arms less divergent above their bifurcation but similarly curling about the bases of the gonopods above. The coxal piece of the anterior gonopods distad of its middle narrowing to a slender process in line with its mesal border, the outer edge strongly sloping, the mesal continuing its even course, the process distally curving a little mesad. The telopodite is elongate and narrowed distad but is distally much broader than the anterior or basal segment, parallel sided, not acuminate as in *Z. digitulus*, barbed on ectal side near apex and again near middle of length. Posterior gonopod in general similar to that of *Z. digitulus* but much less deeply incised distally on ectal side.

The prozonites vary from deep brown to black in color; the metazonites are red. Antennae and legs bright ferruginous. Anal segment and the head and collum lighter, grey-brown, the collum margined with red.

Sulcus of head distinct across vertex and below, absent from frontal region. Eyes trapeziform with the base caudad, the latter convex but other sides straight; somewhat less than twice their diameter apart; 6, 7, 7, 7, 6, 4, 3. The first four joints of the antennae are nearly glabrous, the fifth and especially the sixth hairy.

Lower wing of collum with both the anterior and the caudal margin slanting to its angle; lower edge oblique, rising anterodorsad, a little incurved; margination as usual; surface strongly coriarius in its markings. Sutures well marked, straight, removed from the pore opposite which is not curved. On the anterior segments the prozonites are marked with transverse striae both above and below, longitudinal striae occurring only on the metazonites below, the latter above simply coriariusly roughened. Farther caudad the prozonites are marked for some distance below the level of each pore with a series of striae rising obliquely from the suture and above the suture with a series of circular and horseshoe-shaped impressions on the line of the suture. The metazonites striate only beneath. The dorsal

surface of both zones strongly roughened with irregularly branching impressed lines generally coriarius in form, but showing a tendency, especially on the metazonites, for a longitudinal arrangement to prevail.

Anal scutum with punctations and impressed lines as on other segments; rounded behind, not equalling the valves. Valves with surface similar; mesal borders elevated.

Of the processes of the anterior legs in the male, the most anterior or those of the third legs are largest, drawn out distally to a slender pointed tip.

Number of segments, fifty-seven.

Diameter (male), 4.5 mm.

655. *ZYGOSTROPHUS ALTERANS*, sp. nov.

TYPE.—M. C. Z. 4,796. PARATYPE.—M. C. Z. 4,797. Queensland: Toorway near Brisbane (W. M. Wheeler).

In the character of its gonopods approaching *Z. digitulus* (Brölemann) more nearly than *ferruginopes*, the genotype. The median plate has the sides more evenly curving; it is distally more prolonged and the tip is set off as a more slender process which equals or slightly surpasses the processes of the coxal plates. The narrowing distad of the coxal plate of the anterior gonopods is much less abrupt than in *Z. digitulus*. The distal part of the telopodite is broad, angular at apex and with an angular ectal projection nearly as in *Z. digitulus*.

The general color is blue-black with the caudal borders of metazonites red; small black spots over part of the pores, labial border fulvous. Antennae and legs bright ferruginous.

Head with sulcus, eyes, and antennae nearly as in *Z. ferruginopes*.

Collum of male differing from that of the genotype in having the lower angle more acute, the lower margin evenly continuous with the anterior one.

In the anterior region the segments are much as in the genotype, with transverse striae similarly developed but surface in general less roughened. On some of the anterior segments the prozonites are marked with curved crescentic to horseshoe-shaped marks which become smaller caudally, passing into small punctiform impressions. In the posterior region the segments above almost wholly smooth.

The network of impressed lines on anal segment very fine and obscure. Scutum rounded, not surpassing the valves. The latter with mesal margins elevated.

In the anterior legs of the male the coxal processes much less pointed than in *Z. ferruginopes*; those of the third legs narrowest, distally rounded; the following ones subquadrate in outline, being distally truncate.

Number of segments, fifty-seven or fifty-eight.

Diameter (male), 4.5 mm.

656. *ZYGOSTROPHUS URALLANUS*, sp. nov.

TYPE.—M. C. Z. 4,799. PARATYPES.—M. C. Z. 4,800. New South Wales: Salisbury Court near Uralla (W. M. Wheeler).

Presenting a very different appearance from the other species because of the broader and lighter pale stripes, each pale stripe, testaceous of a dilute ferruginous cast, embracing the entire metazonite and dorsally often encroaching on the prozonite; prozonite black, becoming lighter down the sides so that the pleural region appears lighter than the dorsum; covered zone also light colored. Anal segment, collum and head blackish or greyish black, the collum narrowly margined with the fulvoferruginous and the anal scutum and valves also paler caudally. Legs dilute ferruginous.

Sulcus across vertex and below as usual. Vertex strongly, finely roughened with several impressions shagreened. Eyes more strongly narrowed cephalad than in *Z. ferruginopes*, fully twice their diameter apart.

The lower edge of the collum short, rising obliquely and meeting the anterior edge at an angle as in *Z. ferruginopes* but a little convex, not incurved as in the latter form.

Metazonites longitudinally striate below in the usual manner, these striae extending only half way up the side to the pore, above them a series of impressed areas along the suture. The prozonites on the side with a dense network of very fine curved lines, running obliquely or vertically; prozonites dorsally with numerous circular and horse-shoe-shaped impressions which decrease in size from the suture.

Valves exceeding the anal tergite; mesal borders strongly elevated.

In the gonopods the median plate has its distal piece formed precisely as in *Z. digitulus* but proportionately longer and the sides not so strongly bulging at proximal end. The coxal plates of the anterior gonopods have the tips of their cornuate processes covered by the distal end of the median plate. The posterior or telopodite division of the anterior gonopods of a very different form, the distal end not

angular but truncate and expanded into a cap-like top; the lower ectal angular projection longer and more retrorse.

The coxal processes of the third legs in the male clavately enlarged, the processes of the following legs small almost obsolete.

Number of segments, fifty-five.

Width of male type, 4.5 mm.

657. *ZYGOSTROPHUS DIGITULUS* (Brölemann).

Spirostrophus digitulus Brölemann, Records Austr. mus., 1913, 10, p. 113, pl. 15, fig. 27-28, pl. 16, fig. 30-32.¹

LOCALITY.—Queensland: Condamine.¹

658. *ZYGOSTROPHUS TARGIONI* (Silvestri).

Trigoniulus targioni Silvestri, Bull. Soc. ent. Ital., 1897, 29, p. 229.¹

LOCALITY.—Queensland: Cairns.¹

SYMPASTROPHUS, gen. nov.

This genus is undoubtedly close to *Spirostrophus* with which it agrees, while differing from *Trigoniulus*, in lacking pads on the tarsi of the anterior feet of the males. It is segregated from *Spirostrophus* on the basis of differences in the male gonopods. The median plate of the gonopods is distally deeply incised. The anterior gonopods are especially characterized by having the femur extended into a conspicuous process on the mesal side of a distinctly separated terminal joint, this process curving ectad. In the posterior gonopods below the ordinary processes there is a straight slender styliiform process that seems to convey the seminal duct, though this is not wholly certain.

GENOTYPE.—*S. manokwaranus*, sp. nov.

659. *SYMPASTROPHUS MANOKWARINUS*, sp. nov.

TYPE.—M. C. Z. 4,776. Dutch New Guinea: Manokwari (Thomas Barbour).

Posterior part of zonites red, the anterior region above brown to testaceous with a cross stripe, often interrupted at the middorsal line, dusky to black and the lower part of the sides and venter testaceous to fulvous. Anal scutum dark. Legs and antennae red.

Head smooth. Sulcus widely interrupted in the frontal region. Antennae long, reaching to the caudal edge of the second tergite. Eyes large, only about their diameter apart. The cardo of the gnathochilarium much more strongly produced than in *Trigoniulus lumbricinus*.

Collum with lower angle more acute than in *T. lumbricinus*, its anterior edge straighter.

Transverse sulcus curved at level of the pore. The principal markings of the segments dorsally are short, curved impressions in a band just in front of the position of the suture, these much fewer than in *T. lumbricinus* and absent excepting in the narrow band mentioned, no coarse punctae. Segments strongly longitudinally striate beneath and part way up the side.

Anal scutum smooth and shining, much exceeded by the valves. Valves with borders compressed and elevated but not set off by a marginal furrow; border crossed by distant fine sulci and also some fine vertical sulci across upper part of each valve.

Median plate of gonopods with branches widely diverging, broad, curving about bases of gonopods as in *Acanthiulus* and *Spirostrophus*; mesal process or free portion of outer branch farther dorsad or toward end of arm than usual in *Spirostrophus*, broad and thin, short. Femur of anterior gonopods prominently ridged along mesal side and extended on this side distad as a conspicuous rounded prominence along the side of the tibial lobe toward which it curves. The tibial lobe short, rounded, without angles or processes. In the posterior gonopods there is at the tip a triangular plate and below this a thin plate-like extension showing a median spine-like rib. From a rounded lobe proximad of this extends a slender acute needle or style which seems to contain the terminal part of the seminiferous duct but this could not be ascertained with entire certainty.

Number of segments, fifty-four.

Width, 4.5 mm.

The following species were inadvertently omitted from the manuscript as prepared for publication.

PLATYRRHACUS SARASINORUM Carl.

Rev. Suisse zool., 1912, 20, p. 144, pl. 5, fig. 17.¹

LOCALITY.—Celebes: Uangkahulu-Tal.¹

PLATYRRHACUS ALATUS Carl.

Rev. Suisse zool., 1912, 20, p. 146, pl. 5, fig. 16 and text fig. 11, 12.¹

LOCALITY.—Celebes.¹

PLATYRRHACUS ZONATUS Carl.

Rev. Suisse zool., 1912, **20**, p. 149, pl. 5, fig. 9.¹

LOCALITY.—Kabaena Island, south of Celebes.¹

PLATYRRHACUS ARIETIS Carl.

Rev. Suisse zool., 1912, **20**, p. 151, pl. 5, fig. 10, 11.¹

LOCALITY.—North Celebes: Matinangkette.¹

